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CLASS TITLE: ARMORED TRUCK OPERATOR

CODE: 7301

CHARACTERISTICS OF THE CLASS:

Under general supervision, drives an armored truck or money bus in picking up and delivering cash and other valuables between the various railway divisions; and performs related work as required.

Requires responsibility for making limited and routine contacts with other departmental personnel and outside organizations relative to the pickup and delivery of money and valuables. Nature of work involves some physical effort in the loading and unloading of money and valuables.

EXAMPLES OF DUTIES:

1. Drives and loads armored money truck to pick up and deliver currency, money bags, transfers, mail and lost and found articles from the divisions and departments of the transit system.
2. Loads and makes regular pickups of foreign coins.
3. Loads and delivers regular and emergency money pickups for various banks and city treasurer.
4. Is responsible for seeing that the armored truck is in good operating condition.
5. Signs for and maintains records covering transfer of money and other valuables at all points of delivery and pickup.
6. May assist in the central money room as needed in counting and checking money.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by at least three years of experience in the operation of light trucks or similar types of automotive equipment; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires knowledge of: automotive equipment operation, service and maintenance requirements; existing traffic laws and regulations.

Requires ability to: follow oral and written instructions; deal tactfully with other employees and the public; exert a moderate amount of physical effort in moving, lifting and transporting fare collections and related materials.

License: Requires possession of a valid state chauffeurs license.

PROMOTIVE LINES:

To: Motor Equipment Operator

From: Original entrance examination

3 1223 06447 5305

CLASS TITLE: AUDIO-VISUAL EQUIPMENT TECHNICIAN

CODE: 7302

CHARACTERISTICS OF THE CLASS:

Under general supervision, is responsible for the operation and maintenance of a wide variety of audio-visual equipment; inspects and performs emergency and limited repairs on such equipment; provides technical assistance in the purchase, installation and utilization of equipment; and performs related duties as required.

Requires responsibility for: carrying out, interpreting and enforcing department policies and methods in relation to the repair, maintenance and operation of audio-visual equipment; making daily contacts with instructional personnel on matters concerned with the utilization and requisition of equipment; preparing and maintaining the unit's records and reports.

EXAMPLES OF DUTIES:

1. Screens requisitions for repair of audio-visual equipment and inspects repaired equipment on its return from outside service dealers; inspects permanent and portable audio-visual and public address installations and recommends as to the repair or replacement of same; makes emergency installations and repairs on equipment.
2. Assists in the preparation of specifications for the purchase of audio-visual equipment, parts and supplies; provides technical advice and assistance in the planning for and utilization of public address systems and other specialized equipment; instructs and demonstrates the proper use of all types of audio-visual equipment.
3. Checks all new audio-visual equipment and supplies for compliance with specifications; supervises the issuing of equipment; estimates needs, requisitions for, and maintains a stock of replacement parts.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, with additional training in the fundamentals of electronics and radio maintenance and repair, supplemented by at least three years of increasingly responsible and varied experience in the repair of audio-visual equipment, or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of the principles and practices of inspecting, testing and repairing a wide variety of audio-visual equipment.

Requires ability to provide technical assistance in the purchasing of audio-visual equipment and public address systems.

Requires considerable skill in the application of the methods and techniques used in testing, inspecting and repairing audio-visual equipment.

PROMOTIVE LINES:

To: No normal line of promotion

From: Original entrance examination

Adopted 1/12/61

JAN 12 1961



CLASS TITLE: BARBER

CODE: 7303

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs the duties of a skilled barber in an institution; and performs related duties as required.

Requires responsibility for: following established methods and procedures; making continual personal contact with patients. Nature of work requires some physical effort involving continuous light work with considerable standing.

EXAMPLES OF DUTIES:

1. Gives haircuts and shaves to patients and ambulatory inmates.
2. Sterilizes and sharpens barber tools.
3. Keeps shop clean and sanitary.
4. Maintains barbering supplies, and requisitions supplies as needed.
5. Performs other personal services incidental to barbering.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires education equivalent to completion of a course in a barber college of recognized standing, supplemented by at least three years of practice as a licensed barber.

Knowledge, Abilities and Skills: Requires good knowledge of: the methods, materials and equipment used in barbering work; modern barbering aseptic methods and shop sanitation.

Requires ability to get along well with others.

License: Requires a registered barber's license issued by the state board of barber examiners.

PROMOTIVE LINES:

To: No normal line of promotion

From: Original entrance examination

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: COMPUTER REPAIR AND MAINTENANCE TECHNICIAN

CODE: 7304

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled repair, service maintenance and installation of microcomputers, CRT terminals, printers, disc drives, modems and related equipment; diagnoses malfunctions in computers and ancillary equipment; disassembles defective components and repairs when cost effective; purchases parts and equipment; maintains service records on departmental inventory; and performs related duties as required.

DISTINGUISHING FEATURES:

Positions in this classification are responsible for servicing, repairing and overhauling microcomputers, terminals, modems, disc drives and ancillary computer equipment. The incumbent troubleshoots problems, makes diagnoses and performs repairs.

EXAMPLES OF DUTIES:

"The class specification shall be descriptive of the class and shall not be considered as a restriction on the assignment of duties not specifically listed." (CSC Rule 7)

1. Diagnoses malfunctions and repairs microcomputers, CRT terminals, printers, modems and disc drives; utilizes specialized testing equipment, including a volt-OHM meter, signal generator, oscilloscope and frequency meter; contacts vendors and manufacturers to resolve equipment malfunctions.
2. Disassembles microcomputers and ancillary equipment and inspects for defects; repairs or replaces defective components and reassembles equipment; performs general servicing including cleaning, adjustment and lubrication of computers and components.
3. Maintains records pertaining to servicing of all microcomputers and component equipment.
4. Installs and advises on the installation and wiring of microcomputers and related equipment; advises personnel regarding the purchase, operation and care of computer equipment.
5. Purchases replacement parts for computers and components; maintains current information on products and manufacturers' technical specifications.

DESIRABLE QUALIFICATIONS:

"The examination announcement shall provide the qualifications...and other particulars... Applicants must be guided solely by the announcement of the examination for which they apply." (CSC Rule 9)

Knowledge, Abilities and Skills: Considerable knowledge of current practices, tools and materials involved in the servicing and maintenance of microcomputers, disc drives, printers, modems and related equipment.

Considerable ability to analyze and diagnose malfunctions and perform required repairs; work effectively without immediate supervision; learn the characteristics of new types and models of microcomputers and peripheral equipment.

ADOPTED: 6-5-89

#4076c



**CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES**

JOB CODE TITLE: METAL FABRICATOR

JOB CODE: 7305

Business Unit: COMMN

Definition:

Under general supervision, performs skilled metal fabrication work in forging, shaping and bending metals for the manufacture, repair and maintenance of machinery, equipment and facilities; and performs related duties as required.

Distinguishing Features:

Class 7305 Metal Fabricator is a journey level class with no promotive lines. It is distinguished from the 7395 Ornamental Ironworker in that incumbents in the latter class perform skilled work in connection with the installation, maintenance and repair of steel rolling doors, chain link fences, ornamental iron and other metal structures.

Supervision Exercised:

None

Examples of Important and Essential Duties:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this class and are not intended to be a restriction on the assignment of duties not specifically described in the class specification.

1. Forges, forms, bends, shapes, hardens and tempers various metals.
2. Lays out, prefabricates, welds and installs new work.
3. Replaces and renews worn and broken parts, tools and other equipment for cable cars, rail cars, buses, and other public transportation systems.
4. Restores, straightens and aligns damaged, broken or worn vehicular and other equipment component parts.
5. Dismantles and installs equipment as required.
6. Designs and fabricates parts, tools, brackets and other equipment.
7. Forges and sharpens tools, picks and other equipment.
8. Operates electric and gas welding equipment in connection with metal fabricating work.
9. Repairs or forges new tools; hardens and tempers punches, dies, shears and other tools.
10. Works from blueprints, shop sketches, drawings, patterns or models.
11. Finishes metal parts after completion of necessary fabrication processes.
12. Makes all necessary fabrication and welding repairs to shop equipment and maintenance vehicles.

Job Related and Essential Qualifications:

Knowledge of: methods and procedures used in forging, forming, bending, shaping, hardening, tempering, heat treating, finishing, and welding (electric and gas) various metals; methods and procedures, including all applicable OSHA regulations, necessary to ensure safety of metal fabricators and other employees from potential hazards while working with hot metals and dangerous tools and equipment; basic composition, characteristics, and uses of commonly used metals and equipment in the metal fabricating trade, such as oxyacetylene and various types and grades of metals.

JOB CODE TITLE: METAL FABRICATOR**JOB CODE: 7305**
Business Unit: COMMN

Ability to: use hand, mechanical and welding tools and equipment for metal fabricating work, such as hammer, sledgehammer, anvil, vices, C-clamps, carts, stepladder, wire wheel welding mask, grinders, metal press, lifting boom, smog hog exhaust system, arc and MIG welder, welding torch, and shop vac; understand and utilize the designs and measurements indicated on equipment or specific parts in order to detail and lay out work prior to fabrication; lay out, prefabricate, and fabricate parts, tools and brackets for transit vehicles and other equipment; communicate orally with supervisors, co-workers and other departmental personnel; interpret designs and measurements indicated on equipment or specific parts; work cooperatively with co-workers of all levels, including the ability to guide co-workers when necessary in order to complete projects.

Experience and Training Guidelines:

Three (3) years experience as a journey level metal fabricator, inside ornamental ironworker, metalsmith, blacksmith or welder involved in general metal fabrication, metal forming, and welding work. This experience must include oxyacetylene, arc, MIG and TIG welding; **AND**

Ability to lift 60 lbs. (will be tested during probationary period.)

Special Requirement:

Essential Functions require: sustained physical effort involving considerable standing, bending and occasional heavy lifting (must be able to lift at least 60 lbs.).

Work environment may require: exposure to conditions where moderately serious cuts, burns or bruises may be encountered, with intermittent exposure to disagreeable working conditions.

Effective Date: 4/13/61

Retitled and Amended Date: 4/6/00

Reason for Amendment: to retitle the class and accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this job class.

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SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: AUTOMOTIVE BODY AND FENDER WORKER

CODE: 7306

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled work in connection with the maintenance and repair of the exterior and interior bodies of a wide variety of equipment, including automotive and transit equipment; and performs related duties as required.

Nature of work involves: some physical effort and dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where minor injuries may be incurred.

EXAMPLES OF DUTIES:

1. Fabricates sheet metal parts for the repair or replacement of damaged motor vehicle and transit equipment bodies, fenders and radiators; fabricates and repairs a variety of metal auxiliary equipment on motor vehicles.
2. Straightens, replaces and repairs fenders, panels and other exterior parts of motor vehicle equipment.
3. Operates gas and electric welding equipment in the repair of bodies, frames, and radiators on a variety of automotive equipment; repairs metal bodies and frames on trolley coaches, which may include street cars and cable cars.
4. Repairs and replaces windows, fenders and weather stripping on transit equipment.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman auto body and fender worker; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: the care and use of tools and materials necessary to automotive body and fender repair work.

Requires ability to determine the body repairs needed for a wide variety of damaged mobile equipment.

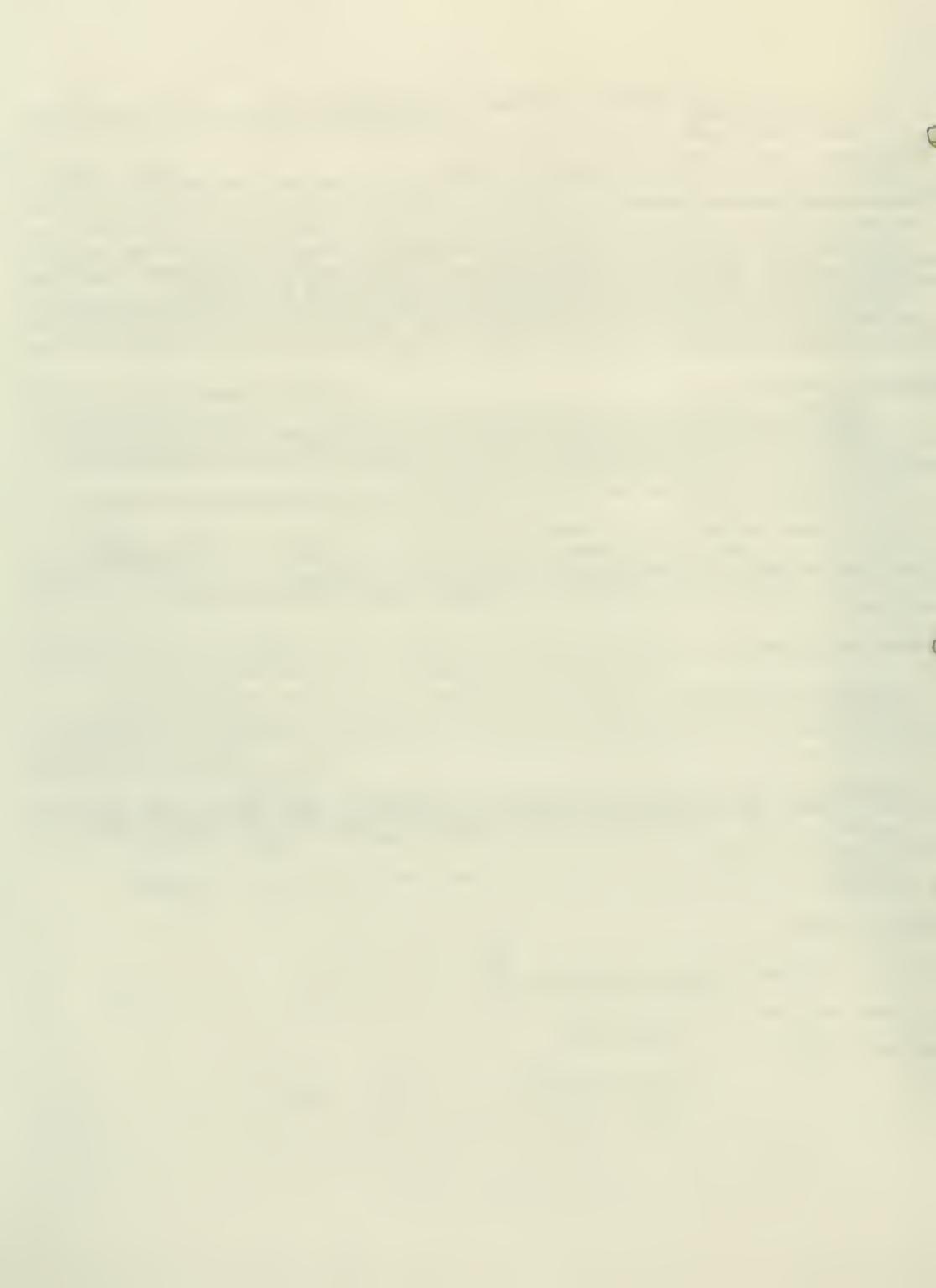
Requires considerable skill in the use of the tools, materials and equipment of the trade.

PROMOTIVE LINES:

To: No normal lines of promotion

From: Original entrance examination

AMENDED: 7/2/64



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: BRICKLAYER

CODE: 7307

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled bricklaying work in connection with the maintenance and repair of brick sewers and related facilities; exercises work direction over subordinates assisting in such work; and performs related duties as required.

Nature of work requires: considerable physical effort in working in confined areas; exposure to extremely disagreeable working conditions involving working in and around raw sewage.

EXAMPLES OF DUTIES:

1. Repairs brick and concrete sewers.
2. Lays and repairs main and side sewer pipe of various sizes.
3. Builds and repairs manholes, culverts and catch basins.
4. Repairs overflow and weir wall structures.
5. Makes emergency repairs to sewage treatment plants and pumping stations.
6. Supervises hodcarriers in the performance of various duties.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman bricklayer, preferably including underground experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of the practices, methods, tools and materials of the bricklaying trade.

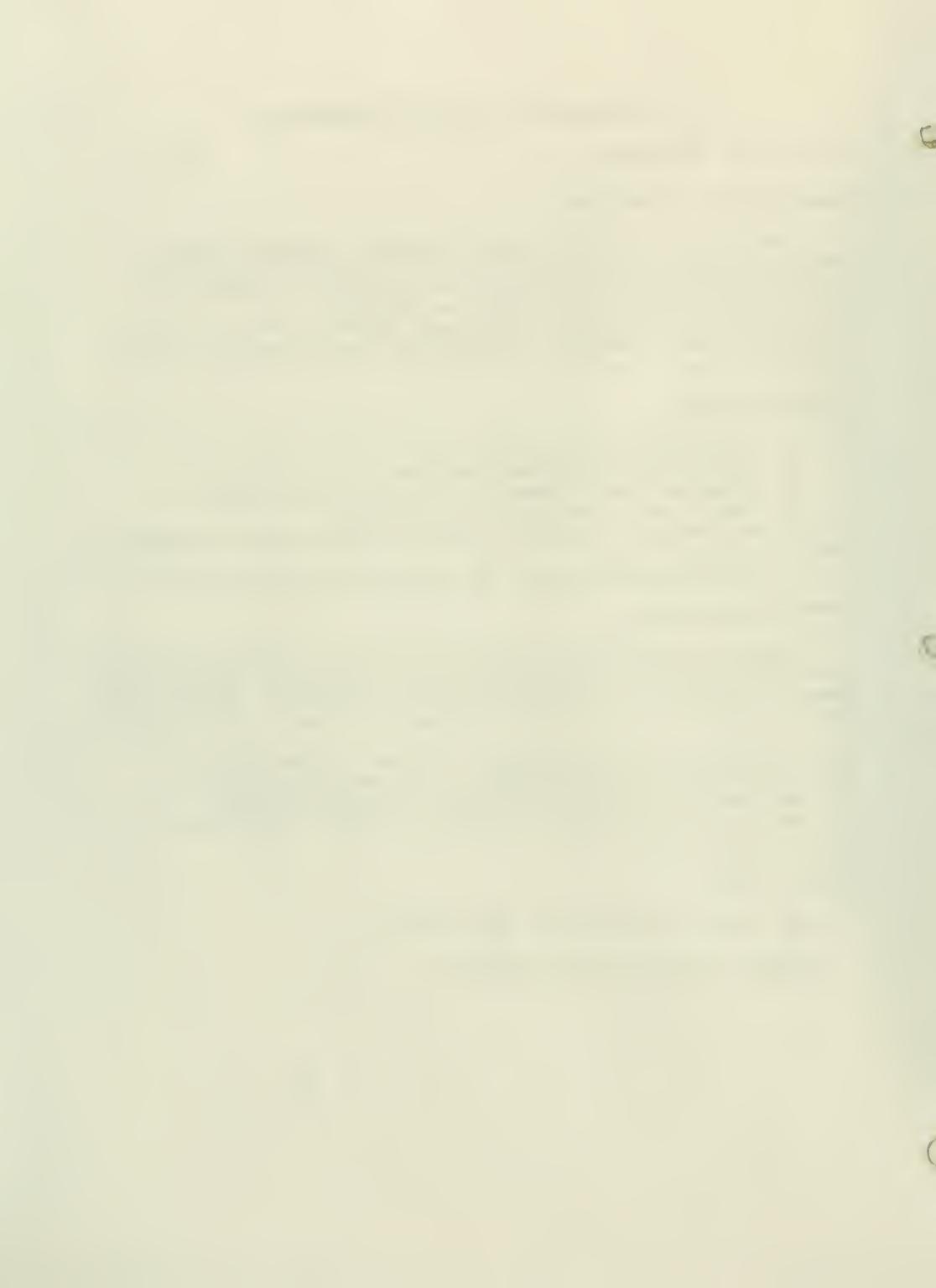
Requires ability to work from sketches, drawings and plans.

Requires considerable skill in the use of tools and materials of the bricklaying trade.

PROMOTIVE LINES:

To: Sewer Repair Assistant Superintendent

From: Original entrance examination



OCT 1 2002

SAN FRANCISCO
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DEPARTMENT OF HUMAN RESOURCES

JOB CODE TITLE: CABLE SPLICER

JOB CODE: 7308

DEFINITION:

Under general supervision, performs journey level cable repair and trouble shooting tasks relative to installation and maintenance of communication, data exchange, monitoring, and alarm systems owned or subscribed to by the City and County of San Francisco.

DISTINGUISHING FEATURES:

Positions in this class are distinguished from the 7275 Telecommunications Technician Supervisor in that they do not have supervisory functions.

SUPERVISION EXERCISED:

None. May provide technical expertise and information for outside wiring contractors.

Examples of important and essential duties:

1. Installs, arranges, splices, terminates and tests data and telecommunication cables, including copper and/or fiber optics cables.
2. Troubleshoots copper cable and fiber optic installations using copper analyzing equipment, optical time domain reflectometers (OTDRs), power meters and light sources, and other diagnostic tools, equipment and procedures.
3. Locates and repairs cable faults; installs underground cable; performs cable sizing, gauging, splicing, terminating and closing; uses proper confined space entry procedures in underground vaults.
4. Installs, arranges, disconnects and troubleshoots telephone facilities and services subscribed to or owned by the City and County of San Francisco; utilizes field testing equipment to test and troubleshoot analog and digital services.
5. Performs installations, testing, and acceptance of voice and data grade circuits on both copper and fiber optic cabling.
6. Performs software administration on telephone switches and various telecommunication systems, including public safety systems; installs horizontal telephone and voice data station wiring.
7. Maintains and updates database of installation and repair work, service requests and work orders; maintains database of parts and components inventory.
8. Provides technical expertise and information to engineering staff and outside wiring contractors as needed.
9. Estimates cost of voice and data installations; maintains records of materials ordered.
10. Performs related duties as assigned.

Job related and essential qualifications:

Knowledge of: voice and data cabling procedures necessary for the installation and maintenance of inside and outside plant copper and fiber optic cable and telecommunications facilities; industry cross-connect practices used to test and turn up voice and data systems; basic safety practices and work procedures in the use of tools, material and equipment.

Ability and Skill to: analyze and troubleshoot cable and communication systems; communicate orally and in writing; read schematic drawings, blueprints and layout work; identify a variety of color codes; work effectively with others; keep accurate work-related records; use computer software to provide circuit provisioning and data capture; to access, input, and maintain records and data; research and prepare reports; use tools and test equipment required for repairing, replacing and splicing multi conductor copper and fiber optic cables and for testing, preparing and sealing cables.

Experience and training guidelines:**Specialty A:**

Four years experience working in the telecommunications industry as a Cable Splicer, which includes two years experience installing, arranging, splicing, terminating and testing copper cabling and two years experience installing, arranging, splicing, terminating and testing fiber optics cabling.

Specialty B:

Four years experience working in the telecommunications industry as a Technician, Installer, Central Office Technician, Wireless Technician or Private Branch Exchange Technician.

LICENSE/CERTIFICATE: possession of a current valid Driver License.

SPECIAL REQUIREMENTS:

Performance of essential duties require: considerable physical effort and dexterity in the use of fingers, limbs and body; excellent visual acuity; exposure to inclement weather and working conditions that are somewhat disagreeable in underground locations; the use of ladders and aerial lift bucket; and lifting of up to 50 pounds of equipment. Candidates must demonstrate the ability to identify a variety of color codes. This will be evaluated during the probationary period.

Effective date: June 1, 1961

Amended date: September 12, 2002

Reason for Amendment: to accurately reflect the current tasks, knowledge, skill and abilities, and minimum qualifications defined in the most recent job analysis conducted for this job code.

DEPARTMENT OF
**HUMAN
RESOURCES**
CITY & COUNTY OF  SAN FRANCISCO

Andrea R. Gourdine, Human Resources Director

**NOTICE OF FINAL ACTION TAKEN BY THE
HUMAN RESOURCES DIRECTOR**

Date: September 25, 2002

Re: Notice of Proposed Classification Actions - N004-02/03 (copy attached)

In the absence of requests to meet addressed to the Human Resources Director, the classification action contained in the above referenced notice became effective September 12, 2002.

Andrea R. Gourdine
Human Resources Director

by: Marsha Stroope
Marsha Stroope
Deputy Director, Merit System Services

cc: All Bargaining Units
Citywide
Kate Favetti, CSC
Harvey Rose, Budget Analyst
Janet Bosnich, ERD
Donna Marchuk, ERD
Janet Rogers, ERD
Geoff Rothman, ERD
Carmela Villasica, ERD
Vernon Nulph, DHR
Pat Pon, DHR
MSS Team Leader
DHR Support Services
File

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OCT 1 2002

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**NOTICE OF PROPOSED CLASSIFICATION ACTIONS
BY THE HUMAN RESOURCES DIRECTOR**

Notice No.: N004-02/03
Posting Date: 09/04/02

The following actions are being posted in accordance with Rule 109. In the absence of requests to meet addressed to the Human Resources Director, the proposed changes will become final seven (7) calendar days from the posting date.

ITEM # **AMEND THE FOLLOWING JOB SPECIFICATION:**
(Draft job specification attached.)

036-02/03 7308 Cable Splicer

Requests to meet on an item should be addressed to the Human Resources Director, 44 Gough Street, San Francisco, CA 94103. All requests must be received in writing no later than close of business seven (7) calendar days from the posting date. **FAX'd copies will not be accepted as timely.**

For additional information regarding the preceding proposed action, please contact Karen Taylor, 557-4872.

Copies of this notice may be obtained from the Information Center, 1st floor, 44 Gough Street.

cc: All Bargaining Units
Citywide
Kate Favetti, CSC
Harvey Rose, Budget Analyst
Janet Bosnich, ERD
Elaine Leeming, ERD
Donna Marchuk, ERD
Janet Rogers, ERD
Geoff Rothman, ERD
Carmela Villasica, ERD
Vernon Nulph, DHR
Pat Pon, DHR
MSS Team Leader
DHR Support Services
File

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OCT 1 2002

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**NOTICE OF PROPOSED CLASSIFICATION ACTIONS
BY THE HUMAN RESOURCES DIRECTOR**

Notice No.: N039-01/02
Posting Date: 6/13/02

The following actions are being posted in accordance with Rule 109. In the absence of requests to meet addressed to the Human Resources Director, the proposed changes will become final seven (7) calendar days from the posting date.

ITEM # AMEND THE FOLLOWING JOB SPECIFICATION:
(Draft job specification attached.)

651-01/02 7308 Cable Splicer

Requests to meet on an item should be addressed to the Human Resources Director, 44 Gough Street, San Francisco, CA 94103. All requests must be received in writing no later than close of business seven (7) calendar days from the posting date. FAX'd copies will not be accepted as timely.

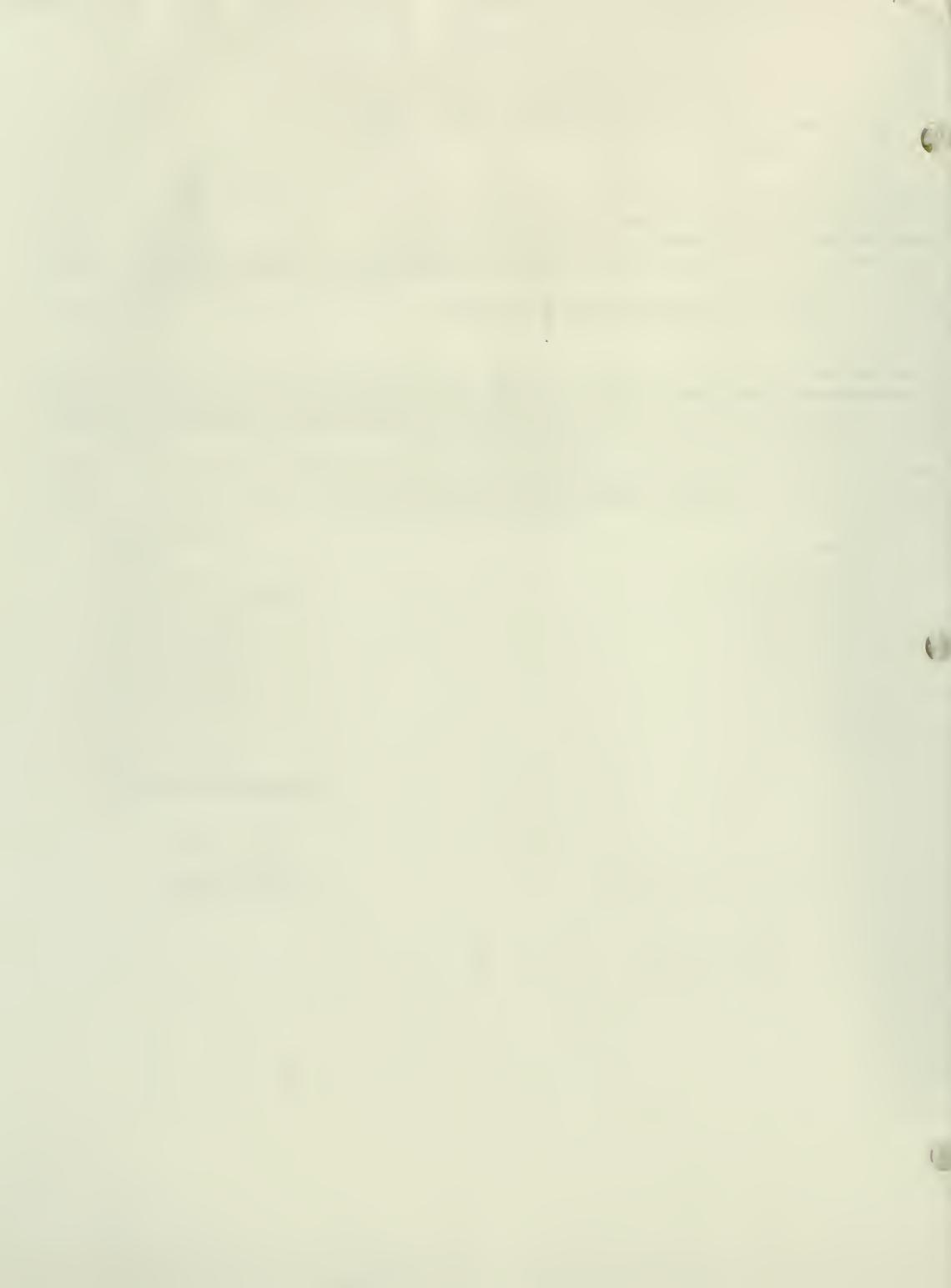
Copies of this notice may be obtained from the Information Center, 1st floor, 44 Gough Street. For additional information regarding the preceding proposed action, please contact Karen Taylor, 557-4872.

cc: Citywide
All Bargaining Units
Kate Favetti, CSC
Harvey Rose, Budget Analyst
Janet Bosnich, ERD
Donna Marchuk, ERD
Janet Rogers, ERD
Geoff Rothman, ERD
Carmela Villasica, ERD
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Pat Pon, DHR
MSS Team Leader
DHR Support Services
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JUN 11 2002

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CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

JOB CODE TITLE: CABLE SPLICER

JOB CODE: 7373

DEFINITION:

Under general supervision, performs journey level cable repair and trouble shooting tasks relative to installation and maintenance of communication, data exchange, monitoring, and alarm systems owned or subscribed to by the City and County of San Francisco.

DISTINGUISHING FEATURES:

Positions in this class are distinguished from the 7275 Telecommunications Technician Supervisor in that they do not have supervisory functions.

SUPERVISION EXERCISED:

None. May provide technical expertise and information for outside wiring contractors.

Examples of important and essential duties:

1. Installs, arranges, splices, terminates and tests data and telecommunication cables, including copper and/or fiber optics cables.
2. Troubleshoots copper cable and fiber optic installations using copper analyzing equipment, optical time domain reflectometers (OTDRs), power meters and light sources, and other diagnostic tools, equipment and procedures.
3. Locates and repairs cable faults; installs underground cable; performs cable sizing, gauging, splicing, terminating and closing; uses proper confined space entry procedures in underground vaults.
4. Installs, arranges, disconnects and troubleshoots telephone facilities and services subscribed to or owned by the City and County of San Francisco; utilizes field testing equipment to test and troubleshoot analog and digital services.
5. Performs installations, testing, and acceptance of voice and data grade circuits on both copper and fiber optic cabling.
6. Performs software administration on telephone switches and various telecommunication systems, including public safety systems; installs horizontal telephone and voice data station wiring.
7. Maintains and updates database of installation and repair work, service requests and work orders; maintains database of parts and components inventory.
8. Provides technical expertise and information to engineering staff and outside wiring contractors as needed.
9. Estimates cost of voice and data installations; maintains records of materials ordered.
10. Performs related duties as assigned.

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JUN 11 2002

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Job related and essential qualifications:

knowledge of: voice and data cabling procedures necessary for the installation and maintenance of inside and outside plant copper and fiber optic cable and telecommunications facilities; industry cross-connect practices used to test and turn up voice and data systems; basic safety practices and work procedures in the use of tools, material and equipment.

Ability and Skill to: analyze methods to diagnose; communicate orally and in writing; read schematic diagrams, blueprints and layout work; identify a variety of color codes; work effectively with others; keep accurate work-related records; use computer software for research and reports; use tools and test equipment required for repairing, replacing and splicing multi conductor copper and fiber optic cables and for testing, preparing and sealing cables.

Experience and training guidelines:

Specialty A:

Four years experience working in the telecommunications industry as a Cable Splicer, which includes two years experience installing, arranging, splicing, terminating and testing copper cabling and two years experience installing, arranging, splicing, terminating and testing fiber optics cabling.

Specialty B:

Four years experience working in the telecommunications industry as a Technician, Installer, Central Office Technician, Wireless Technician or Private Branch Exchange Technician.

LICENSE/CERTIFICATE: possession of a current valid Driver's License.

SPECIAL REQUIREMENTS:

Performance of essential duties require: considerable physical effort and dexterity in the use of fine tools and body; excellent visual acuity; exposure to inclement weather and working conditions that are somewhat disagreeable in underground locations; the use of ladders and aerial lift bucket; and lifting of up to 50 pounds of equipment. Candidates must demonstrate the ability to identify a variety of color codes. This will be evaluated during the probationary period.

Effective date: unknown

Amended date:

Reason for Amendment: to accurately reflect the current tasks, knowledge, skill and abilities, and minimum qualifications defined in the most recent job analysis conducted for this job code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: CABLE SPLICER

CODE: 7308

CHARACTERISTICS OF THE CLASS:

Under general supervision, repairs, replaces and splices multi-conductor cables for fire and police communication systems and traffic signal installations; may splice primary and secondary power cables; and performs related duties as required.

Requires responsibility for: carrying out existing methods and procedures relative to the installation and maintenance of communication and traffic signal systems; preparing routine reports of work accomplished and time expended. Nature of work involves: considerable physical effort and dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where moderately serious injuries may occur; exposure to working conditions that are somewhat disagreeable in underground locations.

EXAMPLES OF DUTIES:

1. Tests and tones cables in communications systems to locate faults; locates and clears such faults by opening cables, resplicing or making necessary repairs; rewipes new joints.
2. Inspects cables in man holes for electrolysis and other damage.
3. Installs and splices a variety of multi-conductor cables for new and extended communications and signal systems; splices primary and secondary power and lighting cables, as required.

MINIMUM REQUIREMENTS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman cable splicer; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of cable splicing methods and techniques; codes, ordinances and regulations relating to electrical installations; underground communication systems.

Requires considerable ability to: read and work from blue prints, drawings and sketches; identify a variety of color codes.

PROMOTIVE LINES:

To: No normal line of promotion

From: Original entrance examination

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: CAR AND AUTO PAINTER

CODE: 7309

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled work in connection with the painting, refinishing and marking of a wide variety of automotive equipment; and performs related duties as required.

Nature of work requires some physical effort and dexterity in the use of fingers, limbs and body and intermittent exposure to disagreeable working conditions.

EXAMPLES OF DUTIES:

1. Prepares surface of buses, streetcars, trucks, automobiles, fire engines and other rolling stock by removing the existing finish by means of chemicals, blowtorch or by other methods; refinishes or repaints the equipment, using a brush or spray gun; prepares and paints heavy and light machinery; mixes paints and matches colors.

2. Makes destination signs for buses and streetcars, schedules, bus stop markers and a variety of other signs; letters vehicles and marks with various insignia, such as official seals and police stars by means of brushes and silk screen equipment; cuts stencils for lettering or for silk screens; prepares silk screens by attaching silk to frame, using a hand stapler and attaching film to silk by means of adhering solution; makes decal transfers using silk screen method; applies gold leaf to specialized equipment.

3. Prepares furniture for refinishing by means of bleaches, paint remover, sanding or other method; applies new finish, such as stain, paint, varnish or lacquer.

4. When assigned, paints interiors and exteriors of various buildings, shops, or other structures; prepares surface for refinishing by removal of old surface; applies trim and appropriate lettering work on structures when necessary.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman painter; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of the tools, materials, equipment and techniques of the trade.

Requires ability to mix and blend paints.

Requires considerable skill in the use of tools, materials and equipment of the trade, including the use of a spray gun, laying out and making of stencils, processing of signs using silk screen method, lettering, work with gold leaf, and striping on automotive equipment, furniture, or similar striping work.

PROMOTIVE LINES:

To: Car and Auto Painter Foreman

From: Original entrance examination

AMENDED: 6/6/63

67

68

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: CEMENT MASON

CODE: 7311

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled work in the laying, floating and finishing of cement and concrete; and performs related duties as required.

Work requires: some independent judgment in completion of assignments; sustained physical effort in bending and kneeling, occasional heavy lifting. Work involves: continuous exposure to hazards where serious bruises and sprains could result; somewhat disagreeable working conditions intermittently.

EXAMPLES OF DUTIES:

1. Mixes, pours and finishes concrete sidewalks, curbs, steps and walks.
2. Sets screens and forms for concrete work.
3. Casts concrete parts for benches, signs, pull boxes and water pipe covers.
4. Raises and resets manhole castings, catchbasins, light and street standards.
5. Finishes concrete and cement with screens, trowels and floats.
6. Applies topping, colors, grits or waterproofing compounds.
7. Operates concrete saw in cutting pavement and sidewalks.
8. Selects materials to be used and assists and supervises the handling of materials.
9. Supervises the covering and barricading of finished work.
10. Measures and lays out work for new construction or repair, and prepares cost estimates on projected work.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman cement finisher; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of the tools, materials and the equipment used in the cement finishing trade.

Requires ability to read and interpret blueprints, drawings and sketches.

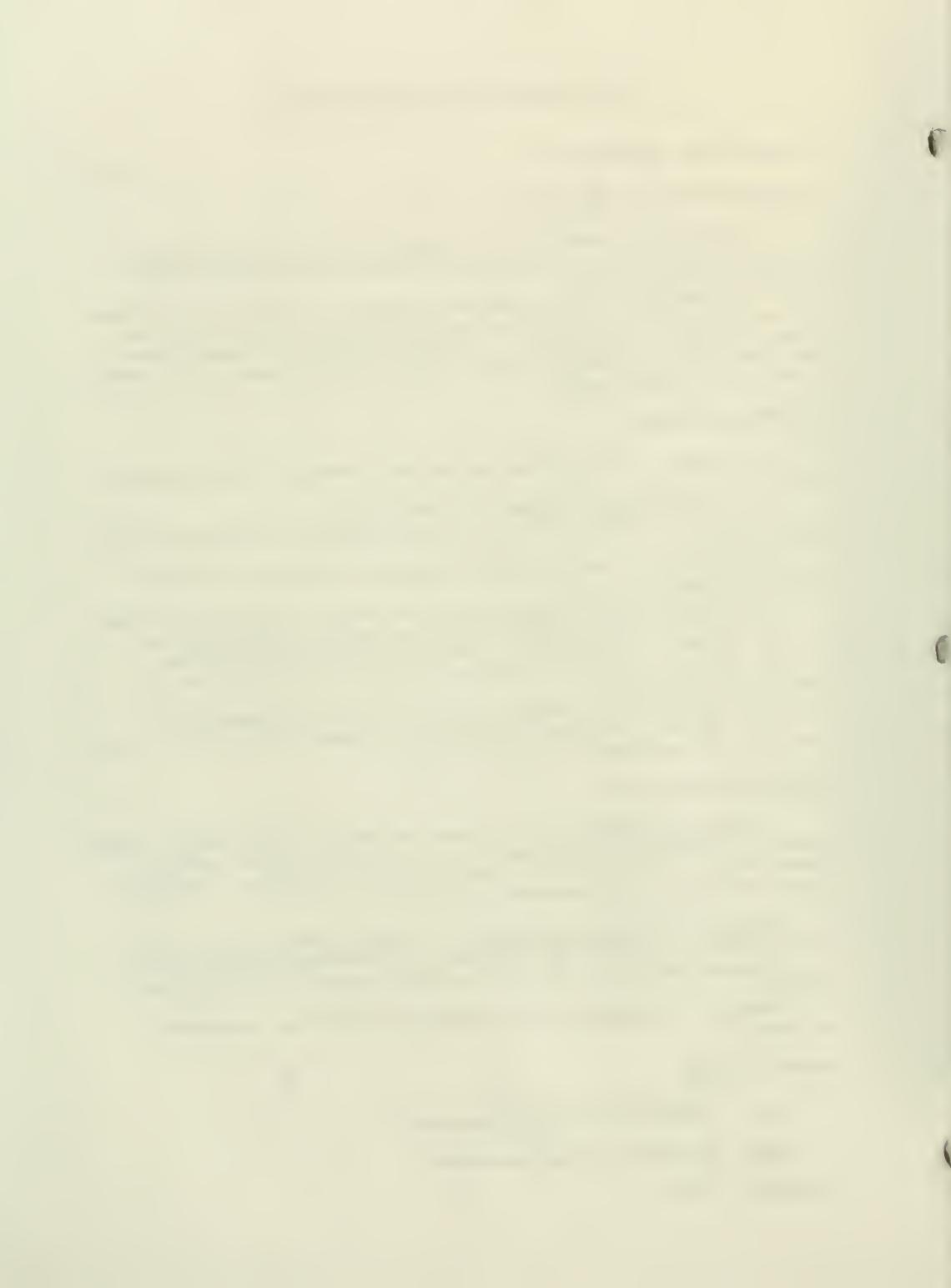
Requires considerable skill in the use of tools and materials of the trade.

PROMOTIVE LINES:

To: 7227 Cement Finisher Supervisor I

From: Original entrance examination

Retitled: 7/1/77



CLASS TITLE: CHAUFFEUR

CODE: 7312

CHARACTERISTICS OF THE CLASS:

Under supervision, operates an automobile in the transportation of persons; services and makes minor repairs to assigned vehicle; and performs related duties as required.

Requires some responsibility for making occasional responsible contacts in connection with driving duties.

EXAMPLES OF DUTIES:

1. Drives automobiles to transport city officials and departmental personnel traveling in the performance of their duties.
2. Ensures that assigned vehicle is properly serviced and in good running condition; may personally service assigned vehicle.
3. May pick up and deliver communications and documents.
4. May perform simple office or clerical tasks when not engaged in driving activities.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by at least three years of experience in the operation of automobiles.

Knowledge, Abilities and Skills: Requires good knowledge of: existing traffic laws, rules, ordinances and regulations; the operation and maintenance requirements of automobiles; the geography of the city.

Requires ability to: service and make minor repairs and adjustments to automobiles; understand and follow written and oral directions; meet and deal tactfully and effectively with the public.

Requires considerable skill in the operation of automobiles.

License: Requires possession of a valid state chauffeur's license.

PROMOTIVE LINES:

To: Motor Equipment Operator

From: Original entrance examination

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CLASS TITLE: AUTOMOTIVE MACHINIST

CODE: 7313

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled machinist work in connection with the major overhaul and reconditioning of all types of automotive engines; fabricates new parts; and performs related duties as required.

Nature of the work involves: some physical effort and considerable dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where minor injuries may be incurred.

EXAMPLES OF DUTIES:

1. Operates lathes, drill presses, milling machines, planers, shapers, grinders, lapping machines, boring bars and other machine tools used in the major overhaul, reconditioning and repair of engines and other component parts of automotive vehicles.
2. Designs and makes machine tools and special equipment; machines or fabricates new parts.
3. Reconditions, refinishes and renews connecting rods, bearings, pistons and rings; fits and installs parts and assemblies in motors.
4. Rebores cylinders; grinds valves and valve seats; line bores main bearings; installs crank shafts; grinds fly wheels; bores cylinder blocks.
5. Repairs, reconditions and calibrates fuel injection systems.
6. Rebuilds and tests voltage regulators; rebuilds and tests generators.
7. May make estimates of material and labor cost and machining work.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of journeyman level automotive machinist experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable working knowledge of: the principles, methods, materials, machines, tools and equipment used in machine shop work; various metals, their characteristics and the methods of cutting and machining them.

Requires considerable ability to: read and work from sketches and drawings; keep simple records and make reports on machine shop activities.

Requires a high degree of mechanical aptitude and skill in the use and operation of metal working machines, tools, materials and equipment.

PROMOTIVE LINES:

To: Automotive Machinist Foreman

From: Original entrance examination

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CLASS TITLE: CURB SETTER

CODE: 731a

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs highly skilled work in connection with the cutting, facing, joining and setting of granite and precast concrete curbs; and performs related work as required.

Nature of work requires: considerable physical effort involving standing, bending and occasionally heavy lifting; exposure to work hazards where moderately serious injuries are encountered.

EXAMPLES OF DUTIES:

1. Cuts faces, joints and top of granite curbs to assure proper fit and alignment.
2. Digs and grades trench for setting curbs and sets each section of curb into proper line and grade.
3. Assures excavation is backfilled and ready for paving or concrete finishing.
4. Supervises and assists workers in opening area adjacent to faulty or broken curbs.
5. Estimates and requisitions materials required for each job.
6. Maintains own hand tools.
7. Makes daily reports of activities and work accomplished.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least three years of journeyman level experience in granite cutting and curb setting work; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of practices, methods, tools and materials used in curb setting and in the granite cutting trade.

Requires ability to estimate material requirements for various curb repair jobs and to make related reports.

Requires considerable skill in the use of granite cutting tools and materials and in aligning, grading and setting curbs.

PROMOTIVE LINES:

- To: No normal line of promotion
- From: Original entrance examination

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: AUTOMOTIVE MACHINIST ASSISTANT SUPERVISOR

CODE: 7315

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled auto machinist work in connection with the major maintenance, repair and overhaul of a variety of automotive equipment; exercises work direction over a small group of subordinate journeyman craftsmen and servicemen engaged in such work; and performs related duties as required.

Requires responsibility for: explaining and carrying out existing maintenance and repair methods and procedures; preparing and maintaining ordinary operating and maintenance reports.

Nature of work involves: considerable physical effort and dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where minor injuries may be incurred.

EXAMPLES OF DUTIES:

1. Participates in and assigns work to subordinate journeyman craftsmen engaged in the major overhaul, reconditioning and repair of engines and other component parts of automotive vehicles.

2. Inspects, tests and reviews maintenance and repair of vehicles and equipment to assure conformance with instructions and standard procedures; approves completed jobs prior to their release.

3. Maintains records of equipment mileage and service time of component parts of equipment to facilitate planning for maintenance and upkeep.

4. Inspects incoming equipment to determine extent of damage and malfunctions and arranges for necessary repairs.

5. Determines parts and materials needed for repair work, orders same, and assures their compliance with needs when received; maintains materials records and makes recommendations regarding the obtaining of new shop equipment.

6. Operates shop equipment and machine tools such as valve facing and reseating machines, honing machines, pedestal grinders, power hack saws, brake riveters, drill presses, generator resters and other shop equipment within the jurisdiction of this craft in connection with maintenance, repair and overhaul work.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and five years of experience as a journeyman automotive machinist, preferably including some supervisory experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable working knowledge of: the methods, materials, machinery, tools and equipment used in the maintenance, repair and overhaul of a wide variety of automotive equipment; the operating and preventative maintenance requirements of such equipment.

CLASS TITLE: AUTOMOTIVE MACHINIST ASSISTANT SUPERVISOR
(continued)

CODE: 7315

Requires ability to: analyze malfunctions in automotive equipment; determine repair requirements; make time and material cost estimates; maintain shop and vehicle operating records.

Requires considerable skill in the use of tools, machinery and equipment of the trade.

PROMOTIVE LINES:

To: 7254 Automotive Machinist Supervisor I

From: 7313 Automotive Machinist

Revised: 11/9/61

Retitled: 7/1/77

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: WATER SERVICE INSPECTOR

CODE: 7316

CHARACTERISTICS OF THE CLASS:

Under general supervision, makes inspections of all types of water services, meters and connections; makes collections from large water consumers; may shut off water supply to enforce payment; connects services to supply water to shipping; investigates complaints regarding water services; and performs related duties as required.

Requires responsibility for: carrying out and explaining existing methods, procedures, rules and regulations pertaining to consumer water services; making regular contacts with the general public, property owners, tenants, building managers, general contractors and other building construction representatives for furnishing or obtaining information and explaining specialized matters pertaining to water services; preparing and maintaining regular operating records pertaining to water services. Nature of work involves considerable sustained physical effort with occasional heavy work requiring manual effort and dexterity with frequent exposure to accident and health hazards and somewhat disagreeable elements.

EXAMPLES OF DUTIES:

1. Investigates complaints and emergency calls pertaining to poor pressure, noises in pipes and fixtures, dirty water, water seepage, bad tastes and odors; determines causes of faults, remedies conditions if possible or makes arrangements for dispatching repair crews, or recommends repairs be made by commercial plumber; inspects buildings and/or blueprints to determine size of service and meter necessary to insure adequate water supply.

2. Removes meters and conducts flow and pressure tests; advises party on premises of results; reinstalls meter.

3. Reads water meters for changes of accounts; turns water on for beginning of new account; inspects premises for leaks or faulty fixtures; opens pipes on inside and outside of buildings; obtains applications for water service from new occupants; collects deposits; notifies party of any faulty conditions found.

4. Makes arrangements for replacement of meters, faulty or noisy; reports faulty pavement adjacent to meter and over service lines; inspects sidewalk areas which have been broken in connection with water service installation or repair; replaces faulty meter box covers; makes reports of all conditions found and actions taken.

5. Acts as special collector for the settlement of delinquent accounts; discontinues services after due notice in an effort to enforce collection; maintains records of amounts collected; reports accounts considered as poor credit risks; discusses high bills, collection procedures and department rules and regulations with consumers.

6. Determines causes of unusual consumption; checks premises as to type of occupancy; contacts owners or agents and interviews consumers to obtain all available information; inspects and tests meters for possible non-operation, irregular operation or other faults; inspects plumbing, piping and fixtures; takes whatever remedial action that might be necessary and makes official report of findings.

CLASS TITLE: WATER SERVICE INSPECTOR
(continued)

CODE: 7316

7. Acts as water service representative in providing water service to ships at various piers and waterfront locations; goes aboard ship to obtain signatures of responsible officers and confirm request for water; determines quantity of water desired and type of service connections necessary; subsequently disconnects meter and service hose when service is no longer required; maintains and repairs water hose services, connections, fittings and couplings; makes emergency repairs when necessary; keeps related records of services and work performed.

8. Determines and later verifies that water services have been tapped in designated locations and that service and meters have been installed correctly; in cases of buildings supplied by two or more meters, determines precisely what each meter supplies and checks cross-connections between meters; determines whether or not certain services should be continued, discontinued, abandoned or kept for possible future use.

9. Maintains surveillance of all building construction and street contract work in the city and county and arranges for water service for such work in accordance with department rules; computes charges therefor by use of meters or by calculations, in cases where unmetered service is rendered, and makes required reports; inspects fire hydrants and notifies fire department when hydrants are damaged or not being used properly; investigates illegal use of water from fire hydrants and water department service connections and takes necessary action to stop violations; interprets rules and regulations regarding water usage to contractors, superintendents and engineers.

10. May performs the duties of a meter reader in relieving regular personnel in cases of absences; assigns account numbers to new accounts; uses map book to check tap number locations; makes appropriate entries in field book; takes and records meter readings and computes consumption.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least one year of experience in various phases of water service field operations including meter readings, inspection, investigation, consumer service repairs or similar activities; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires knowledge of: the water distribution system and consumer services; water meters and domestic and commercial plumbing systems and fixtures.

Requires ability to: make detailed and accurate field investigations and determinations; detect faults and remedy conditions found or initiate and recommend alterations and repairs as deemed necessary; deal amiably and favorably with consumers, property owners, tenants, property managers and others, frequently under strained and unfriendly conditions.

PROMOTIVE LINES:

To: 7317 Senior Water Service Inspector

From: 1466 Meter Reader

Retitled: 7/1/77

CLASS TITLE: WATER SERVICE INSPECTOR
(continued)

CODE: 7316

7. Acts as water service representative in providing water service to ships at various piers and waterfront locations; goes aboard ship to obtain signatures of responsible officers and confirm request for water; determines quantity of water desired and type of service connections necessary; subsequently disconnects meter and service hose when service is no longer required; maintains and repairs water hose services, connections, fittings and couplings; makes emergency repairs when necessary; keeps related records of services and work performed.

8. Determines and later verifies that water services have been tapped in designated locations and that service and meters have been installed correctly; in cases of buildings supplied by two or more meters, determines precisely what each meter supplies and checks cross-connections between meters; determines whether or not certain services should be continued, discontinued, abandoned or kept for possible future use.

9. Maintains surveillance of all building construction and street contract work in the city and county and arranges for water service for such work in accordance with department rules; computes charges therefor by use of meters or by calculations, in cases where unmetered service is rendered, and makes required reports; inspects fire hydrants and notifies fire department when hydrants are damaged or not being used properly; investigates illegal use of water from fire hydrants and water department service connections and takes necessary action to stop violations; interprets rules and regulations regarding water usage to contractors, superintendents and engineers.

10. May performs the duties of a meter reader in relieving regular personnel in cases of absences; assigns account numbers to new accounts; uses map book to check tap number locations; makes appropriate entries in field book; takes and records meter readings and computes consumption.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least one year of experience in various phases of water service field operations including meter readings, inspection, investigation, consumer service repairs or similar activities; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires knowledge of: the water distribution system and consumer services; water meters and domestic and commercial plumbing systems and fixtures.

Requires ability to: make detailed and accurate field investigations and determinations; detect faults and remedy conditions found or initiate and recommend alterations and repairs as deemed necessary; deal amiably and favorably with consumers, property owners, tenants, property managers and others, frequently under strained and unfriendly conditions.

PROMOTIVE LINES:

To: 7317 Senior Water Service Inspector

From: 1466 Meter Reader

Retitled: 7/1/77



MAR 16 2001

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCESSAN FRANCISCO
PUBLIC LIBRARY

JOB CODE TITLE: SENIOR WATER SERVICE INSPECTOR

JOB CODE: 7317

Business Unit: COMMN

DEFINITION:

Under general direction, the Senior Water Service Inspector is responsible for interpreting, enforcing, and carrying out existing methods, procedures, rules and regulations pertaining to customer water services, water quality concerns and applicable water conservation programs; making regular contacts with the general public, property owners, tenants, building contractors and other building construction representatives for furnishing or obtaining information and explaining specialized matters pertaining to water services; and preparing and maintaining regular operating records pertaining to water services.

DISTINGUISHING FEATURES:

The Senior Water Service Inspector works under direct supervision of the 7204 Chief Water Service Inspector. The 7317 Senior Water Service Inspector is distinguished from the 7316 Water Service Inspector by the fact that they inspect the more difficult and complex complaints as well as have the responsibility of supervising the Water Service Inspectors.

SUPERVISION EXERCISED:

The Senior Water Service Inspector supervises the 7316 Water Service Inspectors and other subordinate staff.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

According to Civil Service Commission Rule 109.3.2, the duties specified below are representative of the range of duties assigned 7317 Senior Water Service Inspector and are not intended to be an inclusive list.

1. Supervises water service inspectors in performing various investigations, tests and inspections related to complaints and emergency calls of water service quantity and quality and applicable water conservation programs, leaks in the system, cross connections and back-flow and irregularities in billing.
2. Participates in performing the more difficult water service tasks and handles the more important negotiations with water service customers and/or their representatives and other public agencies where a high level of decision making is required.
3. Schedules, surveys and conducts field flow tests of water service meters to verify any overage and/or shortage; calculates water flow for irregularities in billings and other customer services.
4. Observes and records registrations of water flow through meters of transmission supply lines, chlorine residuals and pressures, and makes any required adjustments as necessary.
5. Makes comprehensive surveys and field investigations regarding water service quantity and quality in various types of buildings, including commercial establishments, industrial plants, and other building structures.
6. Responsible for investigations and tests for possibilities of cross connections and back-flow when evidences of such cases are suspected. Tests for faulty valves and issues orders for replacement of faulty valves.
7. Disinfects new and repaired water mains, fittings and reservoirs with disinfecting compounds such as hypochlorite solutions, chlorine gas, etc.
8. May supervise water meter readers and be responsible for various programs and special projects as delegated by the Chief Water Service Inspector.

JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: Customer Service, Water Quality, and Water Supply divisions operations and procedures; disinfection procedures; water conservation programs; water distribution systems and consumer services; water meters and domestic and commercial plumbing systems and fixtures.

JOB CODE TITLE: SENIOR WATER SERVICE INSPECTOR

JOB CODE: 7317
Business Unit: COMMN

Ability to: perform detailed and accurate field investigations; interact tactfully, courteously, effectively and objectively with the general public, customers, coworkers and department personnel; coordinate, plan, assign and review the activities of water service inspectors and meter readers; write, prepare, maintain and document clear and logical records, reports and correspondence pertaining to water service investigations, operations and conditions; effectively convey information verbally pertaining to methods and procedures, explain complex ideas clearly; manage special projects/programs and plan, schedule, and coordinate the work assignments of water service inspectors and water meter readers on a daily basis.

EXPERIENCE AND TRAINING GUIDELINES:

1. Two (2) years of experience in various phases of utility service field investigations. (Qualifying experience should be equivalent to the duties and responsibilities of a 7316 Water Service Inspector);
AND
2. Possession of a current valid Class C driver's license.

Notes:

Positions at the Airport Commission are required to obtain Back-Flow Testing /Cross Connection Certification and Grade I Water Treatment Operator Certification within (1) one year of hire.

Effective Date: 7/1/77

Amended Date: 2/23/01

Reason for Amendment: To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this job code.

MAY 17 2000

SAN FRANCISCO
PUBLIC LIBRARYCITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

JOB CODE TITLE: ELECTRONIC MAINTENANCE TECHNICIAN

JOB CODE : 7318

Business Unit: COMMN

Definition:

Under general supervision, performs a wide variety of highly skilled technical work including, but not limited to, the trouble-shooting, maintenance, testing, repair, calibration, fabrication, installation and modification of transit electronic equipment and a wide variety of other types of electronic equipment and related control system components; and performs other duties as required.

DISTINGUISHING FEATURES:

This journey-level job code is characterized by its responsibility for maintenance and repair work on various types of electronic equipment. Assignments may involve responsibility for the circuits, components, and related equipment used in connection with the operation of electronically controlled light rail vehicles. Other assignments may involve responsibility for maintaining electronic communication systems, telemetering, remote control equipment and power house equipment. Incumbents may be assigned duties which bring them in contact with electrical apparatus and electronic and electric subsystems. It is distinguished from 7336 Electronic Instrumentation Technician, Water Pollution Control, in that the latter is responsible for the maintenance and repair of electronic systems, instruments and equipment at the City's sewage treatment plant and pumping stations.

EXAMPLES OF IMPORTANT & ESSENTIAL DUTIES:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to 7318 Electronic Maintenance Technician and are not intended to be an inclusive list.

MUNICIPAL RAILWAY:

1. Performs correction and preventive maintenance, non-routine repair, modification, and troubleshooting, calibration, removal and installation of complex electronic systems and equipment.
2. Tests and calibrates electronic equipment using established test procedures; operates Diagnostic Test Equipment (DTE), function generators, oscilloscopes, transmission measuring test sets, meters, and other devices required to maintain electronic systems and equipment; utilizes various schematics, blueprints, wire lists, equipment manuals, and other resources.
3. Inspects newly installed equipment including circuits and systems to evaluate performance under operating conditions; may assist in the design fabrication, testing, and evaluation of prototypes.
4. Maintains records of work performed; develops documentation for the maintenance installation, removal and modification of electronic systems and equipment.
5. Instructs other personnel in system maintenance procedures and operations; may advise and assist management personnel and others on operating problems involving electronic transit equipment.
6. May operate special hand and power tools, such as soldering equipment, drill press grinder, crimper, saws, wire-wrap tools, and other related equipment.

OTHER PUBLIC UTILITY LOCATIONS:

1. Inspects, maintains and repairs inter-communication systems, power line carrier, supervisory control, remote signal and remote control equipment.
2. Makes periodic inspection, maintenance and repairs of radio, fire alarm and security systems, closed circuit television equipment, digital electronic equipment, telemetering, communication, protective relays, meters and other electronic and auxiliary apparatus.
3. Assists in the inspection, maintenance and repair of various miscellaneous electrical equipment in powerhouse, switch yard and sub-station; may act as an emergency operator at an unattended powerhouse station.

JOB RELATED & ESSENTIAL QUALIFICATIONS:

Knowledge of: Requires considerable knowledge of integrated circuits, solid-state physics, electronics and electrical principles and theory, including solid state components as applied to control, function, and logic circuits; digital and analog circuits; functional use of complex electronic test equipment.

Ability to: Requires ability to evaluate electronic systems, circuits and components; troubleshoot electric communications, power and signal equipment; work from schematics, drawings and blueprints.

Skill to: Following logic procedures with regard for consequences in problem solving; making circuit calculations; interpreting schematics; reading, writing and communicating verbally; the application of safety procedures in the use of high-voltage equipment.

EXPERIENCE & TRAINING GUIDELINES:

1. Completion of a two (2) year or equivalent program in electronics at a recognized academic, trade or technical institution; **AND**
2. Three (3) years of verifiable industrial or institutional electronic or journey-level electrical experience which includes installation, calibration, maintenance, troubleshooting, repair and modification of electronic systems and related electrical components and sub-systems; or an equivalent combination of training and experience; **AND**
3. Valid Class C or III Driver License to be presented at the time of appointment.

Special Requirements: Incumbents are required to work with potentially hazardous equipment and materials including high voltages and may be required to work in confined spaces or dark and damp locations where telemetry equipment, flow meters or other devices are located. Nature of the work involves some physical effort and dexterity in the use of fingers, limbs and body; exposure to some physical working conditions where minor injuries may occur. Normal color vision and a high degree of mechanical dexterity is mandatory.

Effective Date: May 17, 1977

Amended Date: April 28, 2000

Reason for Amendment: To accurately reflect the current tasks, knowledges, skills and abilities defined by the most recent job analysis conducted for this job code.

FEB 28 2001

SAN FRANCISCO
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DEPARTMENT OF HUMAN RESOURCES

JOB CODE TITLE: ELECTRIC MOTOR REPAIRER

JOB CODE: 7319
Business Unit: COMMN

Definition: Under general supervision, the Electric Motor Repairer performs skilled electrical and mechanical work in the maintenance and repair of a variety of electric motors, generators, appliances, power tools, control auxiliaries, and related electrical components.

Distinguishing Features: The Electric Motor Repairer job code is the journey level in this series. It is distinguished from job code 7256 Electric Motor Repair Supervisor I, in that the latter is the supervisory level.

Supervision Exercised: none

Examples of Important and Essential Duties:

According to Civil Service Commission Rules 109 and 409, the duties specified below are representative of the range of duties assigned to this class, and are not intended to be an inclusive list.

1. Maintains and repairs a variety of electrical motors and other electrical devices, equipment and machinery such as D.C. and A.C. single and three-phase motors, switches, controls, power tools, heaters, testing equipment, magnetic contactors, motor generators, floor polishers, and vacuum cleaners.
2. Inspects, diagnoses and tests parts and equipment such as motors, windings, generators, switches, control panels, contactors, batteries, electric circuits and motors for ground, shorts & reverse polarity and other apparent or potential malfunctioning. This includes trouble-shooting of electrical controls in a variety of tools and equipment.
3. Cleans parts, tools and equipment during the course of repair and performs routine tasks.
4. Reads schematic drawing and plans such as machines specifications, blue prints and layout work.
5. Drives non revenue vehicles as required.
6. Performs other related duties as assigned.

Job Related and Essential Qualifications:

Knowledge of: electrical theory necessary for the service and repair of a variety of electric motors and other electrical devices such as generators, switches, appliances, and tools; operating function of a motor's parts in relation to each other, such as the armature, commutator, coils, brushes and ring-winding; materials knowledge, which includes familiarity with the basic composition, characteristics and uses of those materials commonly used in electrical repair; safety rules and regulations required to perform the job in a safe manner including all applicable sections of the Calif. Occupational Safety and Health Act (Cal/Osha) and the City and County of San Francisco Safety Rule Book.

Skill to: utilize various hand, portable power and machine tools used in electrical work, in a safe and efficient manner.

Ability to: read schematics, drawings, blueprints and layout work; understand and interpret the designated form and measurements indicated on an equipment or parts drawing specification into the desired tools or parts with precision and the proper materials; understand and follow instructions, and comprehend both oral and written instructions and directions.

Experience and Training Guidelines:

1. Five years of verifiable experience as a journey-level electric motor repairer, where duties included the electrical and mechanical repair of all types of motors and equipment, coil and armature winding, and troubleshooting control circuitry and related devices; or
2. Three years of verifiable experience as a journey-level electric motor repairer, where duties included the electrical and mechanical repair of all types of motors and equipment, coil and armature winding, and troubleshooting control circuitry and related devices and completion of a recognized four year apprenticeship in electric motor shop mechanics (armature winding). (Substitution: An additional year of journey-level experience may be substituted for each two years of apprenticeship training)

License or Certificate:

Possession of a valid driver license.

Special Requirements: nature of work requires some physical effort and dexterity in the use of fingers, limbs and body; working with high voltage equipment. May be exposed to physical and working conditions where minor injuries may be encountered, may also be exposed to dust and to chemical fumes, which may require wearing of a respirator.

Effective Date: 7/1/77

Amended Date: 2/9/01

Reason for Amendment: To accurately reflect the current tasks, knowledge, skills, and abilities defined in the most recent job analysis conducted for this job code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: TELEVISION AND ELECTRONICS TECHNICIAN

CODE: 7320

CHARACTERISTICS OF THE CLASS:

Under direction, supervises and participates in the operation, maintenance and repair of a wide variety of electronic equipment, including closed circuit television equipment, public address system, electronic language laboratory, electronically operated planetarium, theatre lighting systems and radio equipment at San Francisco City College; and performs related duties as required.

Requires responsibility for: interpreting, coordinating and carrying out existing methods and procedures relating to the operation and maintenance of a variety of electronic equipment; preventing considerable losses by supervising the proper handling and safeguarding of a variety of expensive and complex electronic machinery and equipment; making regular contacts with teaching staff, students, representatives of outside agencies, and others in connection with educational activities involving the use of electronic equipment; keeping routine records on maintenance and operational activities.

EXAMPLES OF DUTIES:

1. Supervises students and participates in the operation, maintenance and repair of a closed circuit television system, including studio cameras, film camera, video tape recorder and associated equipment, such as processing amplifier, switches, R.F. signal modulation unit, R.F. distribution system via coaxial cable, monitors, tape recorders and audio control boards.

2. Supervises and participates in the operation and maintenance of a campus-wide emergency call system and public address system.

3. Supervises and participates in the maintenance of electronic language laboratory equipment including master control panels and student booths.

4. Supervises and participates in the maintenance of electronic components of projectors, tape recorders and other equipment used by teaching staff.

5. Supervises operation and maintenance of electronically controlled planetarium and theatre lighting systems; controls closed circuit distribution of VHF television broadcasts.

6. Checks and reviews work in progress or completed assignments to assure compliance with instructions or procedures; analyzes and corrects most complex maintenance problems; requisitions necessary repair parts, supplies and materials relating to maintenance and operation of electronic equipment.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of a course in electronic engineering with an associate of arts degree; or an equivalent course in television station operation and maintenance.

Requires at least six years of responsible experience in the operation and maintenance of a variety of electronic equipment.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: TELEVISION AND ELECTRONICS TECHNICIAN
(Continued)

CODE: 7320

Knowledge, Abilities and Skills: Requires considerable knowledge of: a wide variety of modern electronically operated equipment, particularly that relating to radio and television systems.

Requires ability to operate and maintain a wide variety of electronic equipment and to supervise students in these techniques; locate and repair breakdowns in electronic equipment; establish and maintain good working relationships with faculty and students.

Requires considerable skill in the application of the techniques of electronic equipment operation and maintenance.

Licenses: Requires possession of a first-class radio-telephone operator's license issued by the Federal Communications Commission.

PROMOTIVE LINES:

To: No normal line of promotion.

From: Original entrance examination.

Adopted 1/4/62

CLASS TITLE: ELEVATOR MECHANIC

CODE: 7321

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled electrical and mechanical work in the installation, inspection, maintenance and repair of elevators and appurtenant equipment; and performs related duties as required.

Nature of work requires: considerable physical effort and manual dexterity; frequent exposure to working conditions where serious injuries may occur.

EXAMPLES OF DUTIES:

1. Inspects, maintains, remodels and repairs elevators and component equipment, including hoisting equipment, electrical and mechanical parts of motors, generators, signal systems, ropes, control cables, safety devices, air compressor, hydraulic bumpers, guide rails and brakes.
2. Tests to locate such faults as defective cage doors and locks, elevator cables, governors controlling speed and distance of cab fall and signal and safety systems.
3. Tests electrical features of elevator equipment for shorts and grounds and clears them.
4. Maintains, inspects, repairs and occasionally assembles all elevator machinery, including electric, hydraulic, belt, compressed air and hand power equipment; also theater stage and curtain elevator machinery, guides and rigging.
5. Determines the need for and recommends major elevator repairs and overhauls.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of journeyman level elevator maintenance and repair experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: the operating characteristics and the electrical and mechanical parts of elevator systems; the design and construction of elevators and appurtenant equipment and the effective methods of installing, maintaining and repairing elevators and appurtenant equipment; applicable safety codes and regulations; electricity and electronics as related to the installation, maintenance and repair of wiring, electric motors, electronic control system, and similar equipment.

Requires ability to: recognize and correct elevator conditions that might be hazardous to public safety; interpret, read and work from mechanical and electrical diagrams.

Requires considerable skill in the use of the tools and testing apparatus of the craft.

CLASS TITLE: ELEVATOR MECHANIC (continued)

CODE: 7321

PROMOTIVE LINES:

To: No normal lines of promotion

From: Original entrance examination

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: AUTOMOTIVE BODY AND FENDER WORKER ASSISTANT
SUPERVISOR

CODE: 7322

CHARACTERISTICS OF THE CLASS:

Under direction, performs skilled work in connection with the maintenance and repair of the exterior and interior bodies of a wide variety of equipment, including automotive and transit equipment; exercises work direction over a crew of automotive body and fender workers engaged in such work; and performs related duties as required.

Requires responsibility for: explaining and carrying out work methods and procedures. Nature of work involves: some physical effort and dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where minor injuries may be incurred.

EXAMPLES OF DUTIES:

1. Supervises and participates in fabricating sheet metal parts for the repair or replacement of damaged motor vehicle and transit equipment bodies, fenders and radiators; fabricates and repairs a variety of metal auxiliary equipment on motor vehicles.

2. Supervises and participates in the straightening, replacement and repair of fenders, panels and other exterior parts of motor vehicle equipment.

3. Assigns tasks and operates gas and electric welding equipment in the repair of bodies, frames and radiators on a variety of automotive equipment; repairs metal bodies and frames on trolley coaches.

4. Repairs and replaces windows, fenders and weather stripping on transit equipment.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and five years of experience as a journeyman auto body and fender worker; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: the care and use of tools and materials necessary to automotive body and fender repair work.

Requires considerable ability to determine the body repairs needed for a wide variety of damaged mobile equipment.

Requires considerable skill in the use of the tools, materials and equipment of the trade.

Requires ability to understand and explain oral and written instructions; assigns and reviews the work of subordinates.

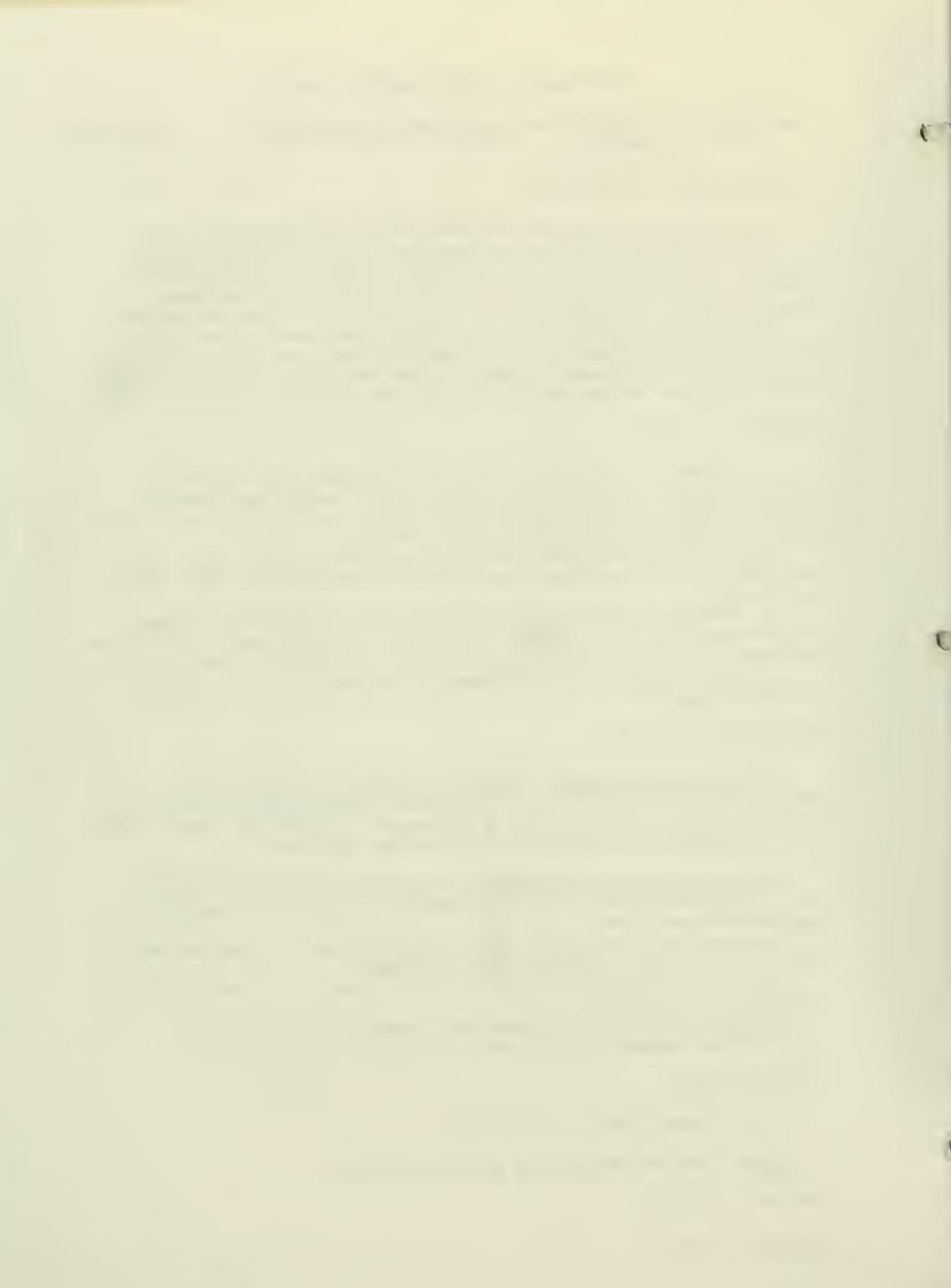
PROMOTIVE LINES:

To: No normal lines of promotion

From: 7306 Automotive Body and Fender Worker

ADOPTED: 11/15/62

Retitled: 7/1/77



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: FIRE DEPARTMENT WATER SYSTEM ASSISTANT
SUPERVISOR

CODE: 7323

CHARACTERISTICS OF THE CLASS:

Under general supervision, assists in supervising the maintenance and repair of fire hydrants and the high pressure water supply system of the fire department; and performs related duties as required.

Requires responsibility for: interpreting, carrying out and enforcing existing methods and procedures relative to the maintenance and repair of the high pressure system; making occasional responsible contacts with other departmental personnel and outside organizations relative to maintenance and repair projects; preparing and maintaining ordinary operational and maintenance records and reports.

EXAMPLES OF DUTIES:

1. Supervises the location of leakage or breaks in the high pressure water supply system; inspects and tests new high pressure hydrant and main installations to insure compliance with specifications; inspects and supervises testing of new standpipes and alterations to standpipes to insure compliance with the fire code.

2. Inspects the work of subordinates in their assigned districts; supervises and inspects the construction and repair of cisterns, reservoir tanks and pumps; enforces safety measures in the performance of all work in the division; trains subordinates in work methods and procedures including the use of tools and equipment; assists in directing the operation of valves and other equipment used for controlling flow and volume of water; supervises the excavation and backfill of all trenches dug in the course of maintenance activities; inspects trucks, tools and equipment used by subordinates for proper care and operation.

3. Assists in the maintenance of complete records of the location of both low and high pressure fire hydrants, gate valves, cisterns and suctions, and of all leakage in tanks, reservoirs or high pressure mains.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship as a plumber and five years of experience as a journeyman plumber, preferably in the maintenance and repair of high pressure water system, including one year of supervisory experience; or an equivalent combination of training and experience.

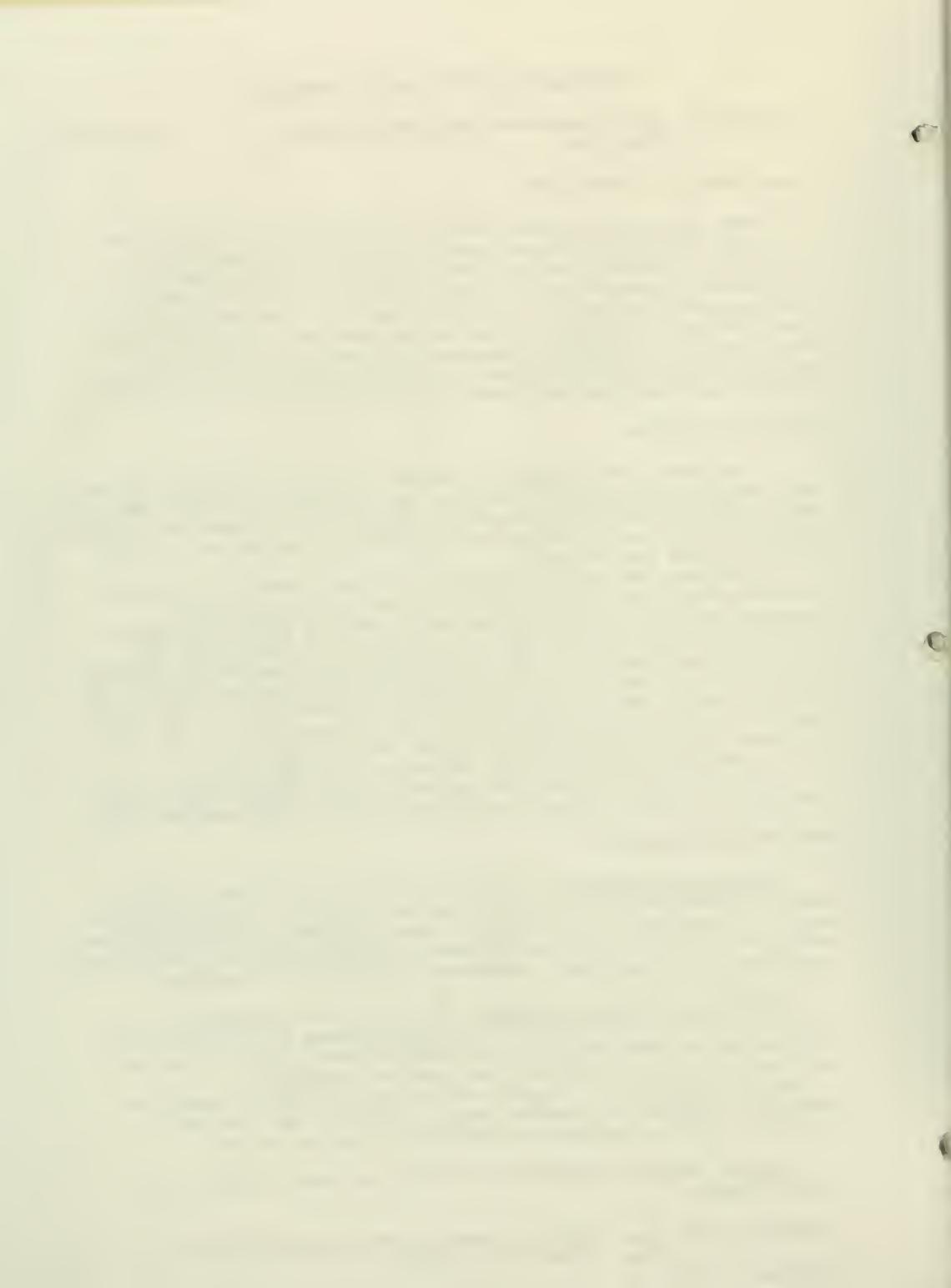
Knowledge, Abilities and Skills: Requires a good knowledge of: all aspects of the high pressure water supply system of the fire department and the methods, procedures and equipment used in its service, repair and alteration; applicable fire codes and regulations.

Requires ability to: supervise and inspect the work of subordinate personnel; organize and supervise repair activities under emergency conditions; prepare and maintain operating records and reports.

License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES: To: 7230 Fire Department Water System Supervisor I
From: 7388 Utility Plumber

Retitled: 7/1/77



CIVIL SERVICE COMMISSION OF SAN FRANCISCO

CLASS TITLE: BEAUTICIAN

CODE: 7324

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs duties of a skilled beautician in an institution; and performs related duties as required.

Requires responsibility for: following modern cosmetological procedures and methods; making continual personal contacts with patients. Nature of work requires some physical effort involving continuous light work with considerable standing.

EXAMPLES OF DUTIES:

1. Washes the hair of female patients by using dry or wet shampooing techniques.
2. Cuts and/or trims women's hair; sets patients' hair by using bobby pins, finger waving solutions and other hair setting techniques; gives permanent waves.
3. Endeavors to encourage patients and restore proper attitude toward rehabilitation by improving their appearance through cosmetological methods.
4. May do manicuring work and engage in other cosmetological procedures incidental to and part of a beautician's services.
5. Keeps the salon in clean and sanitary condition; maintains cosmetological supplies, and requisitions these as needed.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of the tenth grade, supplemented by successful completion of the curriculum in a school of cosmetology, licensed and accredited by the California State Board of Cosmetology.

Requires three years of experience as a licensed beautician or cosmetologist.

Knowledge, Abilities and Skills: Requires a thorough knowledge of: the modern methods, materials and equipment used in cosmetological work; methods of salon sanitation.

Requires the skill and ability to get along well with others and instill a feeling of confidence in others.

License: Requires possession of a license to practice cosmetology issued by the California State Board of Cosmetology.

PROMOTIVE LINES:

To: No normal line of promotion.

From: Original entrance examination.



CLASS TITLE: GENERAL UTILITY MECHANIC

CODE: 7325

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs a variety of skilled mechanical work in connection with the overhaul, maintenance and repair of a variety of mobile and stationary mechanical plant machinery and equipment; and performs related duties as required.

Nature of work involves: considerable physical effort and dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where minor accidents may be encountered.

EXAMPLES OF DUTIES:

1. Makes major and minor repairs to various components of a wide variety of automotive equipment and machinery.
2. Operates a wide variety of machine shop equipment in connection with fabricating parts, reborning, grinding and repair of vehicle components and engines.
3. Makes repairs to body, fender and other outside auxiliaries on automotive equipment.
4. Performs a variety of welding, burning and brazing with acetylene and electric welding equipment.
5. Manufactures and repairs powerhouse and turbine parts and tools.
6. Welds and repairs pipe lines and transmission towers; fabricates, sharpens and works with a variety of steel tools and equipment; operates forging equipment in connection with such work.
7. Repairs hydrographic measuring equipment; makes mechanical repairs to pumps, gaging stations, valves and equipment.
8. Prepares and maintains rock crushing machinery and equipment.

MINIMUM REQUIREMENTS:

Training and Experience: Requires completion of high school supplemented by at least three years of journeyman level experience in the maintenance, repair and overhaul of a variety of automotive machinery and mechanical equipment, including substantial machine shop, blacksmithing and metal work experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: the methods, materials and equipment used in the overhauling, maintenance and repair of mobile machinery and equipment: tools and equipment of the mechanic, machinist, and blacksmith trades, particularly as related to mobile and stationary plant maintenance, overhaul and repair work; the operating and preventative maintenance requirements of a wide variety of mobile and stationary plant equipment and machinery.

Requires considerable ability to: analyze malfunctions in mobile or stationary equipment and machinery and make necessary repairs.

Requires considerable skill in the use of a wide variety of shop tools, machinery and equipment in connection with maintenance, overhaul and repair work.

CLASS TITLE: GENERAL UTILITY MECHANIC (continued)

CODE: 7325

License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES:

To: General Utility Mechanic Foreman

From: Original Entrance Examination

Adopted 11/2/61

**CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES**

DOCUMENTS DEPT.

OCT 22 1999

7326 GLAZIER

**SAN FRANCISCO
PUBLIC LIBRARY**

Definition:

Under general supervision, the essential functions of the Glazier include performing skilled work in cutting, assembling, fitting, setting, fastening, installing, repairing and maintaining glass and plastic sheets and window screens in windshields (MUNI transit vehicles), windows, mirrors, skylights, doors, desktops, showcases, frames, aluminum extrusion window frames; removing and installing window film or tinted applications; and operating a variety of shop machinery and equipment in connection with glazing activities. Incumbents may be required to perform other related duties in addition to the ones listed above. The nature of the work requires some physical effort and manual dexterity in the use of the fingers, limbs and body; lifting and carrying up to 75lbs; working in adverse weather or work conditions such as dust, cold temperatures, loud or continuous noise; and working swing shifts, weekends, holidays and mandatory overtime. Incumbents may be required to work from heights such as a ladder of 25ft or more.

Distinguishing Features:

This is the entry-level position into the class, which requires journey-level experience and training. It is distinguished from the next higher class, 7233 Glazier Supervisor I, in that the latter supervises and coordinates the duties performed by incumbents in class 7326 Glazier duties.

Supervision Exercised:

None.

Examples of Important and Essential Duties:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.

1. Cuts, assembles, fits, sets, fastens and installs glass, plastic sheets and window screens in windows, skylights, doors, showcases, frames, aluminum extrusion window frames and automotive and transit vehicles.
2. Repairs and maintains broken and leaking windows and skylights.
3. Cuts, grinds and installs glass, desktops and mirrors.
4. Operates a variety of shop machinery and equipment in connection with glazing activities such as portacable, wet sanders upright, drill press, edge finishing sander, powered hand sander and saw.
5. Documents work performed by completing work orders and daily work log.
6. Installs aluminum storefront and glaze.

7. Drives a vehicle to work sites.
8. Removal and installation of window film or tinted applications.
9. Operate a forklift to transport materials.

Job Related and Essential Qualifications:

Knowledge of: tools, materials and equipment and safety practices.

Ability to: cut and handle a variety of glass; fit, set, fasten and install glass in windows; perform simple math computations; drive a vehicle to worksites and operate a forklift to transport materials; understand and follow oral instructions; read and comprehend written instructions and produce documentation of work performed by completing work orders and daily work log; communicate clearly and effectively and interact courteously with other staff, supervisors and the general public.

License: Possession of a current valid Class C or III driver's license.

Experience and Training Guidelines:

Training:

Completion of a recognized apprenticeship program of five (5) years in the craft; **AND**

Experience:

Two (2) years as a journey-level glazier; **OR**

Seven (7) years of experience as a journey-level glazier (experience in automotive glazing only is not considered qualifying experience)

AMENDED: **10/8/99**

Reason for Amendment:

To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this class.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: GRANITE CUTTER

CODE: 7327

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled work in connection with the cutting, chipping and shaping of granite curbs; and performs related duties as required.

Nature of work requires: considerable physical effort and manual dexterity in the use of the fingers, limbs and body; exposure to physical and working conditions where moderately serious injuries may occur.

EXAMPLES OF DUTIES:

1. Cuts new tops, faces and joints on granite curbs.
2. Fires, sharpens and tempers stone cutting tools.
3. Sorts and moves stock as necessary to keep curb yard orderly.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman granite cutter; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of the practices, methods, tools and materials of the granite cutting trade.

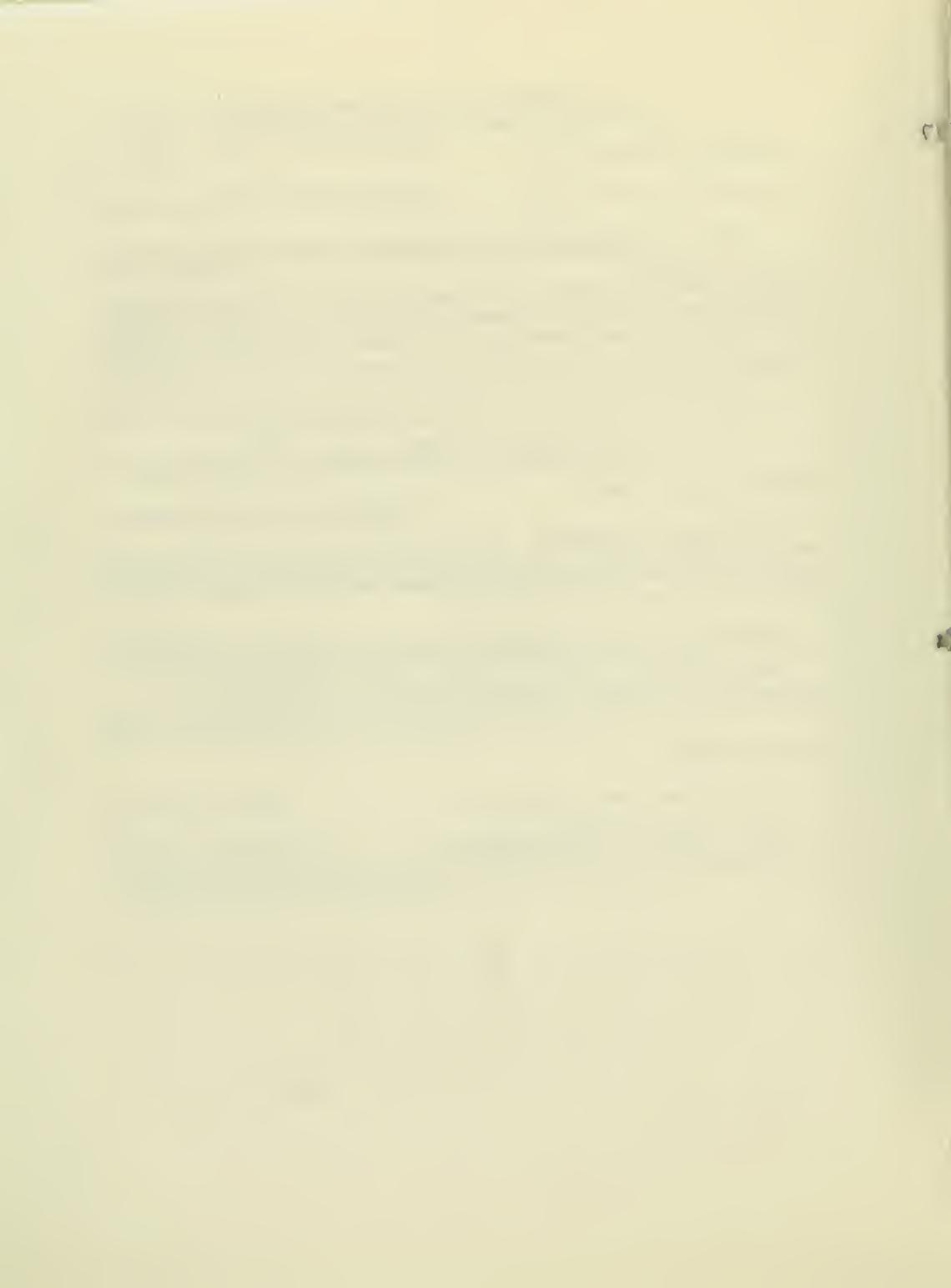
Requires ability to follow oral and written instructions.

Requires considerable skill in use and care of the tools and materials of the granite cutting trade.

PROMOTIVE LINES:

To: No normal line of promotion

From: Original entrance examination



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: OPERATING ENGINEER, UNIVERSAL

CODE: 7328

CHARACTERISTICS OF THE CLASS:

Under general supervision, operates one or more types of heavy construction equipment in connection with the maintenance and construction of roads, streets and other projects; and performs related duties as required.

Nature of work requires some physical effort and dexterity in the use of the fingers, limbs and body, and also involves exposure to physical and working conditions where moderately serious injuries may occur.

EXAMPLES OF DUTIES:

1. Operates large motor graders, bull dozers, power shovels, cranes, hoisting equipment, rollers, loaders and other heavy construction equipment within the jurisdiction of this craft in connection with various construction and maintenance projects.
2. Operates bull dozers in connection with land fills in dump areas and in grading and excavation operations of all types.
3. Services and makes repairs to heavy equipment.
4. Operates back hoe and heater, planer in excavating and making street repairs.
5. Operates a variety of cranes and hoisting equipment in the laying of sewer and water lines and in the moving of equipment and machinery.
6. Operates asphalt spreading equipment in making street repairs and laying new streets.
7. May overhaul heavy equipment.
8. Operates air compressors with a capacity over 105 CFM.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by at least six years of responsible experience in the operation of diversified heavy mobile construction equipment used in all city departments and three years experience as a heavy duty mechanic; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: the operation, maintenance and servicing requirements of a wide variety of heavy construction equipment and vehicles; existing laws, rules and regulations governing the operation of heavy equipment.

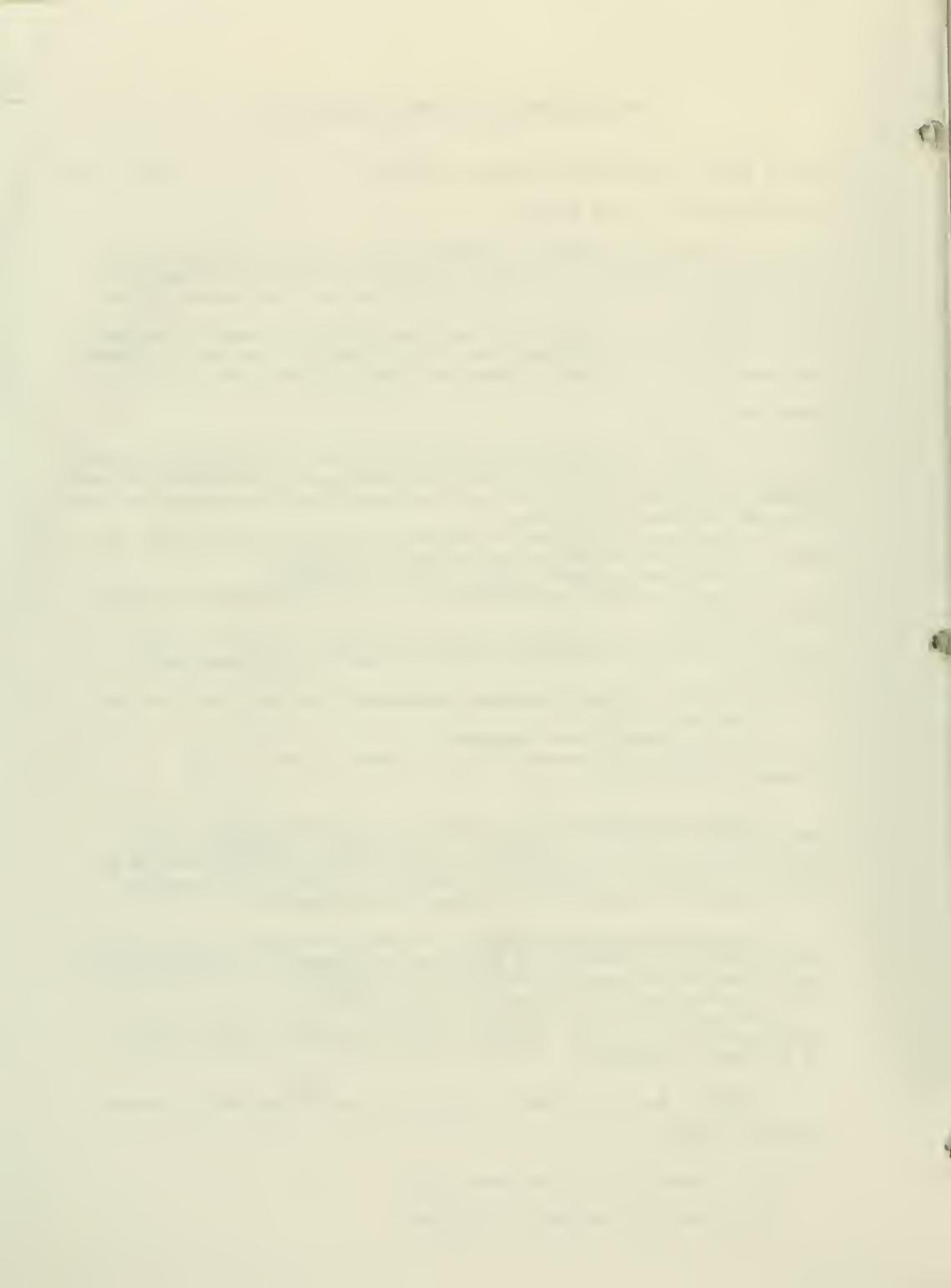
Requires ability to: skillfully operate a wide variety of heavy equipment; follow oral and written instructions; keep routine records of equipment operations.

License: Requires possession of a valid state chauffeur's license.

PROMOTIVE LINES:

To: Roads Maintenance Supervisor

From: Original entrance examination



JUL 17 2001

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCESSAN FRANCISCO
PUBLIC LIBRARYJOB CODE TITLE: ELECTRONIC MAINTENANCE TECHNICIAN
ASSISTANT SUPERVISORJOB CODE: 7329
Business Unit: COMMN**Definition:**

Under general supervision, the Electronic Maintenance Technician Assistant Supervisor is responsible for the supervision of a small group of electronic technicians and other staff engaged in a variety of technical functions.

Distinguishing Features:

The 7329 Electronic Maintenance Technician Assistant Supervisor is the first-level supervisor in the electronic maintenance series, and is responsible for the supervision of a small group of electronic maintenance technicians who are engaged in a wide variety of technical functions. This class is distinguished from Supervising Electronic Maintenance Technician in that the Electronic Maintenance Technician Assistant Supervisor supervises and trains the work of electronic maintenance technicians, while the latter is responsible for the supervision through the subordinate supervisory level of the technicians.

Supervision Exercised: Supervises the electronic maintenance technicians and other staff engaged in a variety of technical functions.

Examples of Important and Essential Duties:

According to Civil Service Commission Rule 109, the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.

1. Supervises and performs preventive maintenance and testing of the hardware and software on various electronic systems and components. This includes assisting in the development of the preventative maintenance program.
2. Repairs, troubleshoots and tests various electronic systems and equipment through the use of manuals, schematics and test equipment.
3. Modifies and installs various electronic systems and equipment through the use of appropriate materials as well as hand and power tools.
4. Maintains records of work performed to ensure proper record-keeping and time-rolls.
5. Drives vehicles to work sites.
6. Schedules and assigns departmental work to ensure smooth workflow.
7. Supervises the work of technicians to ensure that proper quality control measures are maintained.
8. Carries out departmental policies and procedures to maintain good and safe working conditions.
9. Participates in the budget development.
10. Performs other duties as required.

Job Related and Essential Qualifications:

Knowledge of: the principles, theories, practices and procedures involved in the operation, maintenance, repair, trouble-shooting, testing, modification and/or installation of various electronic systems and equipment; the integrated circuits; solid state; digital and analog circuits; and electronic and relay logic; the safety methods and procedures related to operating, maintaining, repairing, trouble-shooting, testing, modifying and/or installing various electronic systems and equipment; the local area networks, personal computers, supervisory control and data acquisition systems (SCADA) and programmable logic controllers.

**JOB CODE TITLE: ELECTRONIC MAINTENANCE TECHNICIAN
ASSISTANT SUPERVISOR**

**JOB CODE: 7329
Business Unit: COMMN**

Skill to: troubleshoot and test various electronic systems and equipment, and interpret schematics and other diagrams; and perform a variety of duties including operating switches, hand and power tools, as well as test equipment.

Ability to: convey information in a clear, concise and courteous manner, listen carefully and respond to questions, concerns, and complaints and respond verbally in a manner which is helpful and logical; organize written information in a logical sequence to prepare reports, correspondence, and other documents; establish and maintain good relationships among staff; meet members of the public in a courteous manner; mediate disputes with a positive resolution; and exercise understanding and sensitivity for persons of ethnic and cultural differences; plan, organize, direct, train and evaluate the activities of technicians and other staff engaged in a variety of technical work; schedule and coordinate tasks or events, oversee the day to day operation of staff functions and activities; determine and establish priorities; set standards and meet predefined goals; function under minimal supervision and/or direction, anticipate problems and be proactive rather than reactive; and obtain a Class C license to drive to various work sites.

Experience and Training Guidelines:

MINIMUM QUALIFICATIONS:

1. Satisfactory completion of a recognized two-year program in electronics from a recognized academic, trade, and technical institution; OR completion of a military training program in electronics; **AND**
2. Five years of verifiable journey-level industrial electronic or journey-level electrical experience which must have included installation, calibration, maintenance, troubleshooting, repair, and modification of electronic systems and related electrical components and subsystems to the electronics component level; **AND**
3. Possession of a valid Class C driver license.

SUBSTITUTION:

One additional year of qualifying experience may substitute for up to one year of the required education. (30 semester units/45 quarter units = 1 year). Credit for coursework will be provided only if the coursework is part of an accredited electronics program.

Effective Date: 10/2/79

Amended Date: 5/25/01

Reason for Amendment:

To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this job code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: SENIOR GENERAL UTILITY MECHANIC

CODE: 7330

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled mechanical work in connection with the maintenance, repair and overhaul of a variety of mobile and stationary machinery, equipment and mechanical facilities; exercises work direction over a small group of subordinate mechanical craftsmen and servicemen engaged in such work; and performs related duties as required.

Requires responsibility for: explaining and carrying out existing maintenance and repair methods and procedures; preparing and maintaining ordinary operating and maintenance reports. Nature of work involves considerable physical effort and dexterity in the use of fingers, limbs and body, including continuous exposure to physical and working conditions where minor accidents may be encountered.

EXAMPLES OF DUTIES:

1. Supervises and participates in the maintenance, repair and overhaul of a wide variety of automotive equipment and machinery.
2. Inspects and reviews mechanical maintenance and repair of gasoline and diesel-powered mobile equipment and machinery, stationary equipment and machinery to assure conformance with instructions and procedures.
3. Inspects equipment to be repaired for damage and malfunctions.
4. Makes arrangement for necessary repair work and works with subordinate mechanics in such repair work.
5. Performs emergency repair work on the plant premises and in the field when necessary.
6. Operates a wide variety of equipment and steel tools used in utility mechanic repair work.
7. Maintains records pertaining to maintenance, repair and servicing activities.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least four years of journeyman level experience in the maintenance, repair and overhaul of a variety of automotive machinery and mechanical equipment, including substantial machine shop, blacksmithing and metal work experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: the methods, materials, machinery, tools and equipment used in maintenance, repair and overhaul of a wide variety of mobile machinery and equipment of the mechanic machinist and blacksmith trades, particularly as related to mobile and stationary plant maintenance, overhaul and repair work; the operating and preventive maintenance requirement of such equipment.

Requires ability to: analyze malfunctions in mobile machinery and equipment and make repairs if necessary.

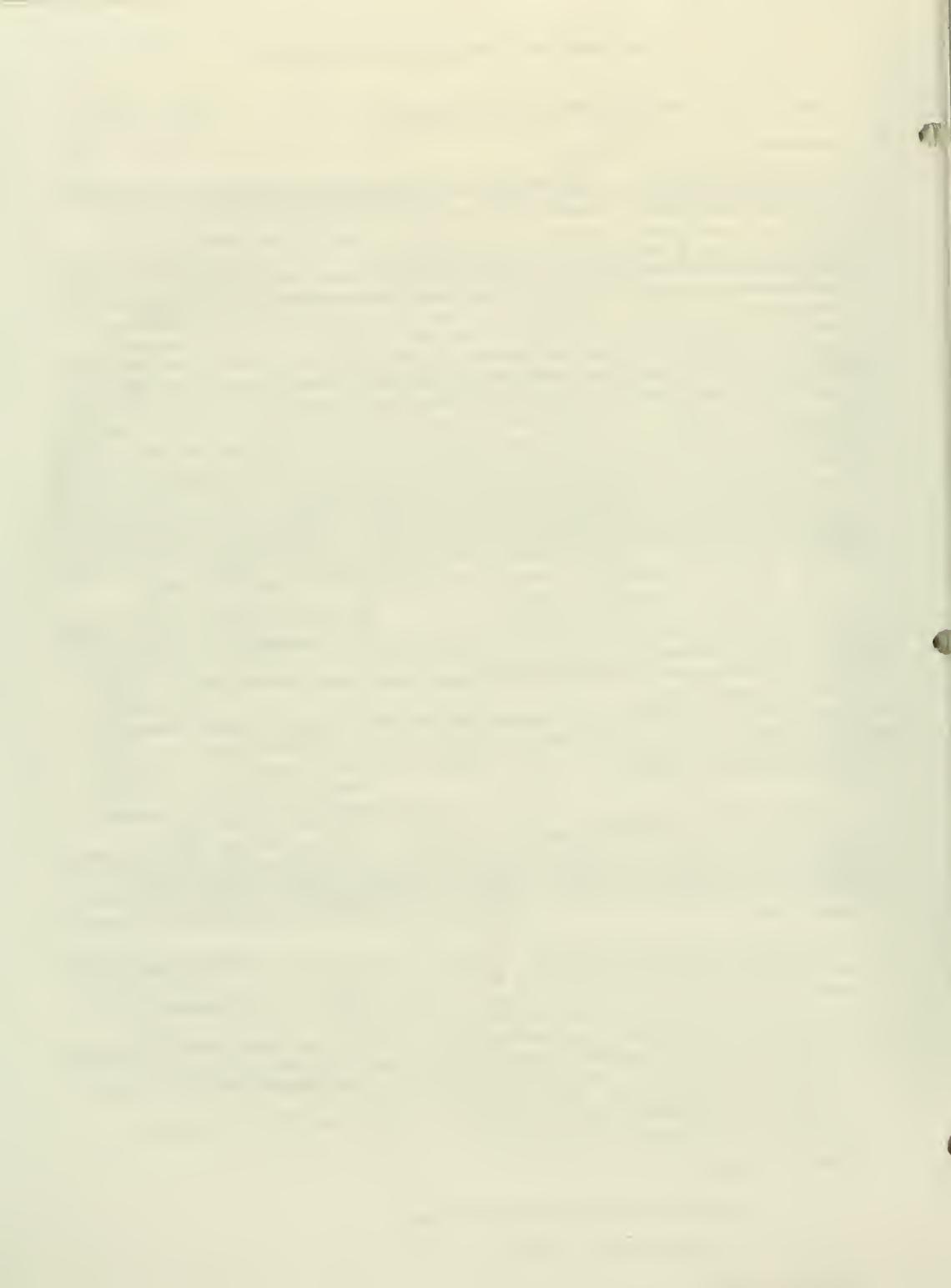
Requires considerable skill in the use of a wide variety of shop tools, machinery and equipment in the trade.

PROMOTIVE LINES:

To: 7232 General Utility Mechanic Foreman

From: 7325 General Utility Mechanic

ADOPTED: 12/1/66



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: APPRENTICE MAINTENANCE MACHINIST

CODE: 7331

CHARACTERISTICS OF THE CLASS:

Under immediate supervision, performs apprentice maintenance machinist work as part of a recognized program established by the Joint Apprenticeship and Advisory Committee, Maintenance Machinists' Trade; all work to be performed and related supplemental instruction are enumerated in the Apprenticeship Standards formulated by said Committee and are summarized in this specification; assists the Maintenance Machinist in the operation and maintenance of fabrication, installation, maintenance and repair of communication equipment, Municipal Railway equipment, fire alarms, machinery, instruments, castings and valves; performs related duties as required.

Nature of work requires: Some physical effort and considerable dexterity, continuous exposure to physical and working conditions where minor injuries may occur.

DISTINGUISHING FEATURES:

The Apprentice Maintenance Machinist works under immediate supervision during the four-year apprenticeship required by the trade, learning the operation, repair and maintenance of various machinery and equipment through diversified experience in on-the-job training and related instructions in order to become a fully skilled craftsman.

EXAMPLES OF DUTIES, under supervision:

1. Repairs, rebuilds, and manufactures tools, equipment and component parts of transit, police and fire communications equipment.
2. Manufactures tools, jigs, fixtures, patterns, machine parts and castings; cuts gears, wires coils and instruments; tests circuits in connection with the maintenance, repair and manufacture of such equipment and facilities.
3. Operates and maintains lathes, drills, presses, milling machines, planers, shapers, grinders and other common machine tools in the construction and repair of parts, tools, fixtures and machinery.
4. Operates gas and electric welding equipment in the manufacture or repair of instruments, communication system components and other equipment.
5. Cleans parts with chemicals and solvents and refinishes such parts with protective coatings.
6. Repairs and manufactures parts for relays and electronically controlled instruments; repairs special tools and equipment necessary to instrument making activities.
7. Makes estimates of materials, labor costs and machinery work.
8. Dismantles machinery and inspects parts for wear.
9. May perform field overhauling of pumps, valves and similar pipeline facilities.
10. Repairs and maintains machine shop tools and special tools when required.

MINIMUM QUALIFICATIONS:

Requires selection by the Joint Apprenticeship Committee of the Maintenance Machinists' Trade.

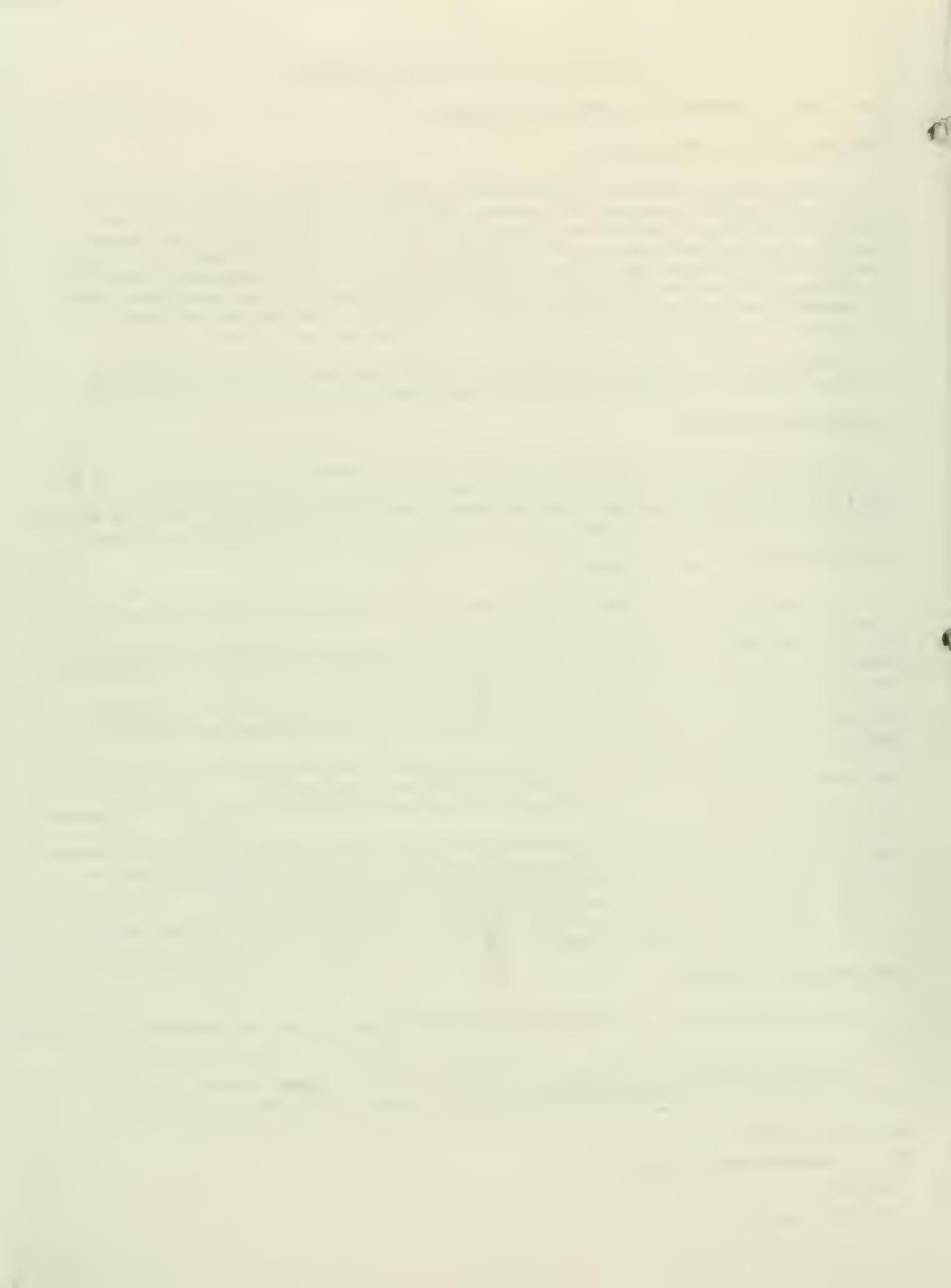
Knowledge, Abilities and Skills: Requires aptitude to learn methods, tools and equipment used in the operation, maintenance and repair of a variety of machinery.

PROMOTIVE LINES:

TO: 7332 Maintenance Machinist

NEW CLASS

ADOPTED: 9-22-80



SAN FRANCISCO CIVIL SERVICE COMMISSION

(NEW CLASS)

CLASS TITLE: MAINTENANCE MACHINIST

CODE: 7332

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled work in the fabrication, installation, maintenance and repair of police communication equipment, fire alarms, machinery, instruments, castings and valves; performs related duties as required.

Nature of work requires: Some physical effort and considerable dexterity, continuous exposure to physical and working conditions where minor injuries may occur.

EXAMPLES OF DUTIES:

1. Repairs, rebuilds and manufactures tools, equipment and component parts of traffic, police and fire communications equipment.
2. Manufactures tools, jigs, fixtures, patterns, machine parts and castings; cuts gears, wires coils and instruments; tests circuits in connection with the maintenance, repair and manufacture of such equipment and facilities.
3. Operates and maintains lathes, drills, presses, milling machines, planers, shapers, grinders and other common machine tools in the construction and repair of parts, tools, fixtures and machinery.
4. Operates gas and electric welding equipment in the manufacture or repair of instruments, communication system components and other equipment.
5. Cleans parts with chemicals and solvents; refinishes such parts with protective coatings.
6. Repairs and manufactures parts for relays and electronically controlled instruments; manufactures and repairs special tools and equipment necessary to instrument making activities.
7. Makes estimates of materials, labor costs and machinery work.
8. Dismantles machinery and equipment and inspects parts for wear.
9. May perform field overhauling of pumps, valves and similar pipeline facilities.
10. Repairs and maintains machine shop tools and equipment; makes special tools when required.

MINIMUM QUALIFICATIONS:

Training and Experience: Completion of high school, supplemented by completion of a recognized apprenticeship in the machinist or tool and die making craft and three years of journeyman experience as a machinist and/or tool and die maker in work comparable to that performed by members of the class.

Knowledge, Abilities and Skills: Requires considerable knowledge of the principles, methods, materials, tools and equipment used in machine shop work; the properties and methods of machining and working various metals, instrument making, the various materials, tools and equipment used in emergency communication and electrical systems and fundamental electrical principles.

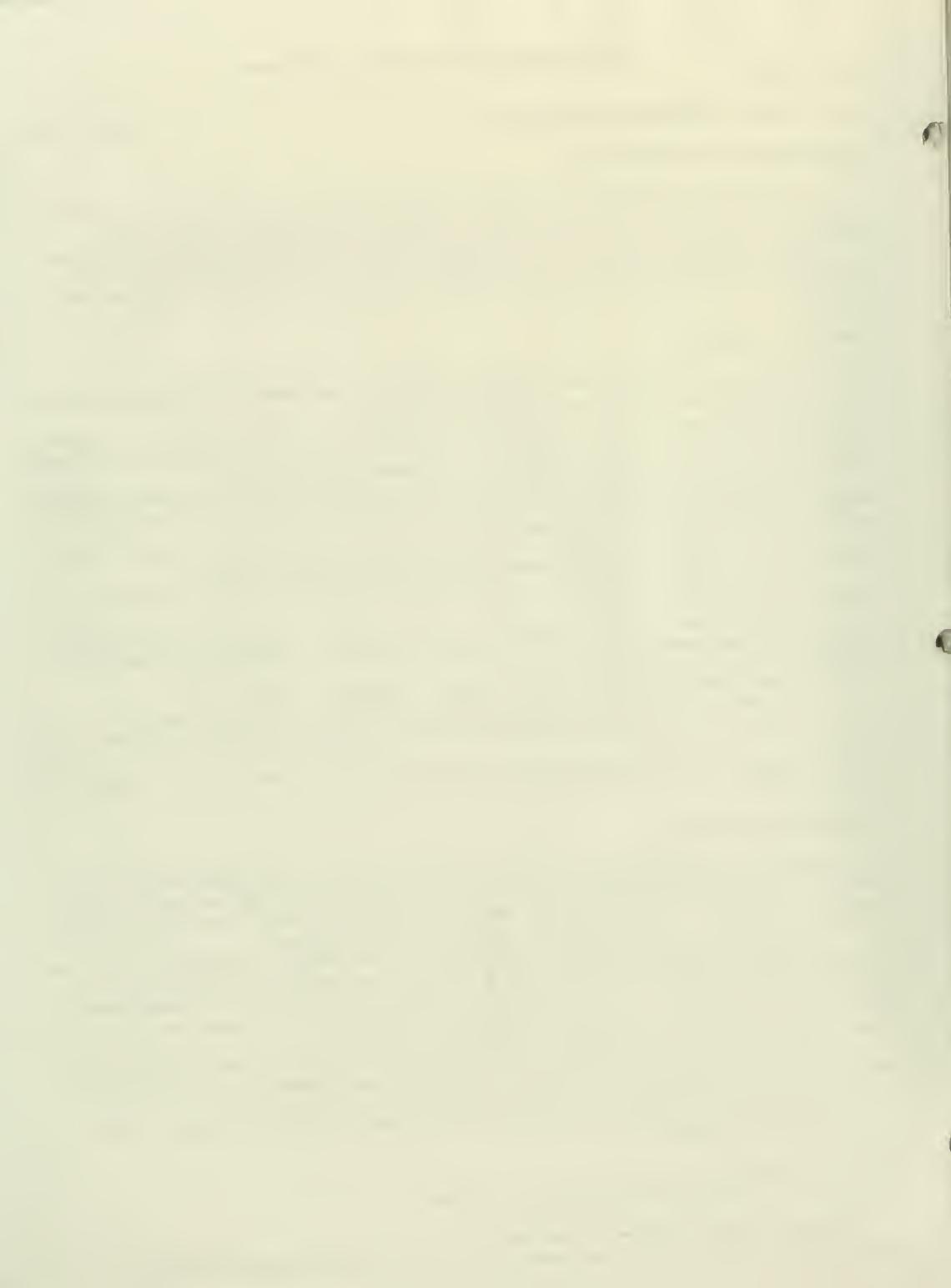
Requires considerable ability and skill to: Operate precision machine tools and equipment; read and work from plans, drawings and blue prints; keep simple records and make reports on machines and machine shop activities.

Requires a high degree of skill in the use and operation of machine tools, materials and equipment.

PROMOTIVE LINES:

To : 7258 Maintenance Machinist Foreman

From: Original entrance examination
(Consolidates classes 7331 Instrument Maker and 7343 Maintenance Machinist)



CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

7333 APPRENTICE STATIONARY ENGINEER

Definition:

Under immediate supervision, is instructed in and performs apprentice stationary engineer work as part of a recognized program established by the Joint Apprenticeship and Advisory Committee, Stationary Engineers' Trade; all work to be performed and related supplemental instruction are enumerated in the Apprenticeship Standards formulated by said Committee.

Distinguishing Features:

The Apprentice Stationary Engineer works under the immediate supervision of a qualified journey level stationary engineer during the four-year apprenticeship required by the trade, learning the operation, repair and maintenance of various machinery and equipment through diversified experience in, on-the-job training, and related instruction in order to become a fully skilled craftsperson. Class 7333 Apprentice Stationary Engineer is distinguished from the next higher class 7334 Stationary Engineer in that the incumbents in the latter class perform full journey level duties under general supervision.

Supervision Exercised: None

Examples of Important and Essential Duties:

According to the Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this job code class and are not intended to be an inclusive list.

1. Assists in the operation and maintenance of boilers, burners, combustion control devices, steam valves, traps and accessories, heating systems, ventilation and air-conditioning systems, radiators, refrigeration systems and equipment, elevators, water pumps and valves, water draining systems and alarm systems.
2. Assists in the repair and adjustment of switchboard controls, electric motors, generators, air compressors, ventilating fans, circuit breakers, elevators, laundry machines, pumping plant equipment, cable winding machinery and other equipment.
3. Assists in inspection and use of fire prevention equipment and safety equipment to assure proper functioning.
4. Assists in operating automatic and manually controlled purification and water treatment equipment including pumps, motors, chemical feeders and filters.
5. Assists in reading and interpreting meters, gauges and charts.
6. When assigned to work in a filtration plant, assists in performing control tests on water samples to determine chlorine residual, pH, alkalinity, turbidity, color, odor, saturation index and flocculation factors. Assists in performing water analysis to maintain proper quality and chemical dosage.
7. Performs related duties and responsibilities as assigned.

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Job Related and Essential Qualifications:

Ability to: learn the methods, tools and equipment used in the operation, maintenance and repair of a variety of mechanical and electrical pumping, heating, ventilating, water treatment and related plant machinery and equipment; establish effective working relationships with journey level stationary engineers and other apprentices; understand spoken instructions and verbally communicate work-related questions and information; read, write, understand and maintain routine records and reports and other work-related information regarding plant activities; operate motor vehicles with both automatic and manual automobile transmissions.

Experience and Training Guidelines:

Applicants must be 18 years of age by the end of the filing period.

Applicants must have either a High School Graduation Diploma, Graduation Equivalent Degree (G.E.D.), or California High School Proficiency Certificate.

License/Certificate: Possession of current Driver License.

Special Requirement:

Upon being hired, the apprentice, the employer and the Joint Apprenticeship Committee must sign an apprenticeship indenture. This is an agreement with the employer and the apprentice, which is filed with the State of California Department of Industrial Relations Division of Apprenticeship Standards, that the employer will train the apprentice in accordance with the apprenticeship standards and the collective bargaining agreement.

Physical Skills require: considerable physical effort in the repair and upkeep of machinery and equipment; the ability to lift heavy objects; physical stamina to stand, stoop, bend and climb ladders and for confined space entry and tight crawl spaces.

Work environment may require: exposure to working conditions where minor abrasions, bruises and burns may be encountered; occasional disagreeable work inside close and dirty spaces.

Effective Date: 12/15/75

Amended Date: 2/1/82

Amended Date: 7/28/99

Reason for Amendment: to accurately reflect the current tasks, knowledge, skills, and abilities of this job code.

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

7334 STATIONARY ENGINEER

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Definition:

Under general supervision, operates, maintains and repairs a wide variety of pumping, heating, ventilating, air conditioning, refrigeration and auxiliary plant machinery and equipment during an assigned watch in a large complex facility or a multi-faceted facility.

Distinguishing Features:

The Stationary Engineer is the journey level class of the series. This class is distinguished from the 7335 Senior Stationary Engineer in that the latter performs more complex and difficult duties and/or supervises subordinate stationary engineers. The Stationary Engineer is distinguished from the 7333 Apprentice Stationary Engineer in that the latter works under the immediate supervision of a journey level stationary engineer while completing apprenticeship requirements.

Supervision Exercised: May supervise the activities of apprentices and serve as lead worker to a small number of co-workers.

Examples of Important and Essential Duties:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this job code class and are not intended to be an inclusive list.

1. Operates, maintains, and repairs a wide variety of pumping, heating, ventilating, air-conditioning, refrigeration and auxiliary plant machinery and equipment in a large complex facility or a multi-faceted facility.
2. Performs inspections to ensure that all equipment, machinery and systems are functioning normally and safely.
3. Ensures compliance with all applicable safety rules and regulations.
4. Troubleshoots and makes operating repairs and adjustments to boilers, (H.V.A.C.) chillers, refrigeration systems, diesel generators, electric motors, pumps, compressors, alarm systems, control systems, energy management systems (DDC, DGP, SCADA), switchboards, controls, elevators and other machinery.
5. Maintains and repairs institutional instruments, furniture, equipment and specialized machines and apparatuses.
6. Explains and ensures compliance with established plant operations, methods and procedures.
7. Maintains and prepares routine plant records and reports.
8. May supervise the activities of apprentices and serve as lead worker to a small number of co-workers.
9. Performs related duties and responsibilities as assigned.

Job Related and Essential Qualifications:

Knowledge of: methods and procedures necessary for the safe and efficient operation, maintenance and repair of mechanical and electrical plant machines, tools and equipment; a wide variety of pumping, heating, ventilating, air conditioning and process machinery; applicable shop practices and safety regulations.

Ability to: establish and maintain effective working relationships with subordinate personnel and supervisors; operate, repair and maintain a variety of pumping, heating, ventilating and similar plant machinery and equipment; maintain plant operating records; use hand tools; operate motor vehicles with both automatic and manual automobile transmissions as required.

Skill to: communicate orders and information in person, by telephone and by radio; read, write and understand reports, memorandum and other written communications regarding plant activities.

Experience and Training Guidelines:

Four (4) years of verified journey-level stationary engineer experience in the maintenance, repair and operation of a variety of mechanical and electrical pumping, heating, air conditioning, ventilating and related plant machinery of a government establishment, hospital, industrial, production or commercial building; OR

Completion of a recognized four-year Stationary Engineer apprenticeship program; OR

Graduation from a recognized four-year Maritime Academy with a degree in engineering or technology; OR

Possession of at least a 3rd Assistant Marine Engineer's License of any (unrestricted) horsepower.

In addition, some positions in this classification may require up to two years experience in the following areas:

- a) High-pressure steam boiler experience.
- b) High pressure (300 PSIG) & high volume (2700 GPM) pumps, each driven by its own diesel engine in multiple parallel operation.
- c) High capacity air-conditioning experience.

Some positions require one or more of the following certifications:

- a) Universal Chlorofluorocarbon (CFC) certificate issued by the Federal Environmental Protection Agency for working with heating and ventilating equipment (HVAC) or other refrigeration equipment using CFC's and HCFC's.
- b) Backflow Prevention Certificate issued by the American Water Works Association.
- c) Waste Water Treatment Certificate issued by the State of California Water Resources Control Board.
- d) Domestic Water Treatment Certificate issued by the State of California Department of Public Health.

License/Certificate: possession of a current Driver License.

Special Requirement:

Essential Functions require: considerable physical effort in the repair and upkeep of machinery and equipment; and ability to lift heavy objects.

Work environment may require: exposure to working conditions where minor abrasions, bruises and burns may be encountered; occasional disagreeable work inside close and dirty spaces.

Effective Date:

Amended Date: 3/1/71

Amended Date: 3/3/75

Amended Date: 7/28/99

Reason for Amendment: to accurately reflect the current tasks, knowledge, skills, and abilities defined in the most recent job analysis conducted for this job code.

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

JOB CODE TITLE: SENIOR STATIONARY ENGINEER

JOB CODE: 7335

Business Unit: COMMN

Definition:

Under general direction, supervises the operation, maintenance and repair activities of a wide variety of pumping, heating, ventilating, air conditioning, refrigeration, and process machinery and equipment in a large complex facility or in a multi-faceted facility.

Distinguishing Features:

The Senior Stationary Engineer supervises the work of subordinate staff and performs more complex and difficult duties. It is distinguished from the next lower class 7334 Stationary Engineer in that the latter is the journey level class of the series. Class 7335 Senior Stationary Engineer is distinguished from the next higher class 7205 Chief Stationary Engineer in that the incumbents in the latter class are responsible for the development, interpretation, coordination and enforcement of methods and procedures relative to the operation and maintenance of large physical plant installations.

Supervision Exercised:

Supervision includes local administrative control and work assignments of craft personnel on extended or temporary assignments. Craft general foremen will supervise their respective workmen in those matters pertaining to craft or trade techniques or methods.

Examples of Important and Essential Duties:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this class and are not intended to be a restriction on the assignment of duties not specifically described in the class specification.

1. Supervises subordinate staff and personally participates in the operation, maintenance and repair of pumping, ventilating and heating equipment, including fans, pumps, air-conditioners and auxiliary equipment; maintains and repairs elevators and specialized kitchen, laboratory and laundry equipment and facilities.
2. Operates and maintains high pressure boilers, fans, pumps, refrigeration equipment, electrical generators, air compressors and various other mechanical and electrical plant machines and equipment; makes periodic inspections and tests of machinery and equipment to assure proper operation and determine the necessity for repair or maintenance; cleans, paints and lubricates plant machinery and equipment, as required; checks and repairs automatic temperature and humidity controls and replaces parts, as necessary; repairs and replaces switches and relays on control panels.
3. Supervises the operation of automatic and manually controlled purification and water treatment equipment, including pumps, motors, chemical feeders and filters to control the quality and regulate the flow of water through a treatment plant; conducts water analysis under general supervision to maintain water quality and proper chemical dosage in filtration plant.
4. Prepares shift schedules and work assignments for subordinate personnel; orders supplies, parts and equipment necessary for operation and maintenance activities; takes, records and computes various meter readings reflecting plant operations; answers emergency calls from various locations or departments in connection with heating and ventilating machinery and equipment breakdowns or malfunctions; makes emergency repairs or alterations in such cases; instructs other operating personnel in the proper operation of boilers, fans, heating equipment and boiler feed water treatment.
5. Performs related duties and responsibilities as assigned.

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Job Related and Essential Qualifications:

Knowledge of: the methods and procedures necessary to the safe and efficient operation, maintenance and repair of mechanical and electrical plant machines, tools and equipment; a wide variety of pumping, heating, ventilating, air conditioning and process machinery; applicable shop practices and safety regulations.

Ability to: promote, establish and maintain effective working relationships with subordinate personnel, supervisors and management, and with members of the public, various suppliers, Regulatory Agencies and other City departments; prioritize, plan, assign, direct and inspect the activities of subordinate stationary engineers and craft personnel; operate motor vehicles with both automatic and manual automobile transmissions.

Skill to: clearly and effectively communicate orders and information; read, write and understand reports, memorandum, log information, manuals, blueprints and other written communications regarding plant activities; maintain plant operating records and prepare related reports; operate, repair and maintain a variety of pumping, heating, ventilating and similar type plant machinery and equipment.

Experience and Training Guidelines:

Five (5) years verifiable experience as a journey-level stationary engineer; **OR**

Completion of a recognized four-year Stationary Engineer Apprenticeship program plus one year verifiable experience as a journey-level stationary engineer; **OR**

Graduation from recognized four-year Maritime Academy plus one year verifiable experience as a journey-level stationary engineer; **OR**

Possession of at least a 3rd Assistant Marine Engineer's License of any horsepower plus one year verifiable experience as an unrestricted licensed Marine Engineer for merchant vessels or one year verifiable experience shoreside as a journey-level stationary engineer.

In addition, some positions in this classification may require up to two years of this type of operation and maintenance:

- a) High-pressure steam boiler experience.
- b) High pressure (300 PSIG) & high volume (2700 GPM) pumps each driven by its own diesel engine in multiple parallel operation.
- c) High capacity air-conditioning experience.

Some positions require one or more of the following certifications:

- a) Universal chloroflourocarbon (CFC) certificate issued by the Federal Environmental Protection Agency for working with heating and ventilating equipment (HVAC) or other refrigeration equipment using CFC's and HCFC's.
- b) Grade IV Water Treatment Operator's Certificate.

License/Certificate: possession of a current Driver License.

Special Requirement:

Essential Functions require: considerable physical effort in the maintenance, repair and operation of plant machinery and equipment; the ability to lift heavy objects.

Work environment may require: exposure to working conditions where minor abrasions, bruises and burns may be encountered; occasional disagreeable work inside close and dirty spaces.

Effective Date: 3/9/61

Amended Date: 3/1/71; 3/3/75; 7/28/99; 3/6/00

Reason for Amendment: to accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this job code.

**CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES**

**JOB CODE TITLE: ELECTRONIC INSTRUMENTATION
TECHNICIAN, WATER POLLUTION CONTROL**

**JOB CODE: 7336
Business Unit: COMMN**

Definition:

Under general supervision, performs a wide variety of skilled technical duties in connection with maintaining, monitoring, testing, calibrating and repairing electronic and pneumatic equipment at water pollution system sites and control centers; performs periodic testing of and preventive maintenance on instrumentation and controls; analyzes malfunctions; and performs related duties as required.

Distinguishing Features:

Class 7336 is a journey level technical position at the City's sewage treatment plant and pumping stations, responsible for the maintenance and repair of electronic systems, instruments and equipment used in handling materials in liquid and /or gaseous forms. It is distinguished from Class 7318 Electronic Maintenance Technician in that the latter is responsible for the maintenance and repair of electronic communication systems used to control Muni's light rail vehicles, electrical equipment at PUC's powerhouses, substations and other equipment used to monitor and control machines and materials in solid forms.

Supervision Exercised:

None.

Example of Important and Essential Duties:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.

1. Operates test apparatus such as Diagnostic Test Equipment (DTE), using established testing procedures to produce, regulate and record effects of actual or simulated conditions; prepares reports interpreting test data to useable terms; may direct other technical personnel assisting in test procedures.
2. Performs diagnostic, corrective and preventive maintenance on complex electronic systems and instruments, including analog pneumatic and digital electronic equipment located at a water pollution facility.
3. Maintains records of work performed; develops documentation for the maintenance, installation, removal and modification of electronic systems and equipment.
4. Installs and inspects new equipment; evaluates performance under operating conditions; assists in the design, fabrication or modification of fixtures, instruments and related apparatus; and verifies and evaluates dimensional and functional acceptability and performance of such devices.
5. Operates special power or hand tools and measuring equipment including soldering equipment, oscilloscopes, multi-meters, analyzers, calibrators, hand generators, power suppliers and other instruments used in operating, testing, calibrating or repairing electromechanical and electrohydraulic apparatus.

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Job Related and Essential Qualifications:
Knowledge of:

The methods and procedures involved in the maintenance, monitoring, testing and repair of electronic and pneumatic equipment, including knowledge of integrated circuits, electronic and electrical principles and theory; digital and analog circuits; relay logic and electronic power, data processing and communications equipment; application of safety procedures related to electronics, work in sewers and around sewage processing centers.

Ability to:

Evaluate electronic systems, equipment, circuits and components; to use electronic instruments and related electromechanical apparatus in testing and calibrating equipment.

Skill in:

Following logical procedures in problem solving; making circuit calculations; interpreting schematics; communicating effectively orally and in writing.

Experience and Training Guidelines:

1. A. Completion of a two-year AA or AS degree program in Electronics, Instrumentation or related sciences; **OR**
B. Electronic or Instrumentation training (equivalent to an AA degree) at a recognized trade or technical school; **OR**
C. Military training equivalent to an AA degree in Electronics or Instrumentation
AND;
2. A. Three years of experience in the maintenance and repair of industrial instrumentation and control equipment; **OR**
B. Three years of experience in the maintenance and repair of industrial equipment in at least three of the following four areas: Electronics, Pneumatics, Hydraulics, or Instrumentation; **AND**

License:

1. Possession of a current valid Class C Driver's License.

Effective Date: March 11, 1985

Amended date: Feb. 24, 2000

Reason for Amendment:

To accurately reflect the experience and training guidelines as defined in the most recent job analysis conducted for this job code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: MAINTENANCE MACHINIST ASSISTANT SUPERVISOR

CODE: 7337

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled work in the fabrication, installation, maintenance and repair of a wide variety of instruments and mechanical equipment; directs the work of a small group of subordinate journey level maintenance machinists; performs related duties as required.

DISTINGUISHING FEATURES:

This position reports to the Maintenance Machinist Supervisor and is responsible for the work of a small group of journeylevel maintenance machinist.

EXAMPLES OF DUTIES:

"The class specifications shall be descriptive of the class and shall not be considered as a restriction on the assignment of duties not specifically listed." (CSC Rule 7)

1. Participates in and assigns work to subordinate maintenance machinists engaged in repairing, rebuilding and manufacturing tools, equipment, pumps, and component parts.
2. Inspects and reviews maintenance and repair to assure conformance with instructions and standard procedures.
3. May instruct subordinates in methods of manufacture, fabrication or repair of equipment.
4. Prepares drawings and sketches in connection with the fabrication of tools and safety equipment for machine shop use.
5. Maintains operational and personnel records; meets regularly with subordinate maintenance machinists to discuss safety and personnel matters
6. Determines parts and materials needed for repair work, orders same, and assures their compliance with needs when received; maintains materials records and makes recommendations regarding the obtaining of new shop equipment.
7. Supervises and assists in the manufacture of tools, jigs, fixtures, patterns, machine parts, valves and castings in connection with the maintenance, repair and manufacture of such equipment and facilities.
8. Operates, repairs and maintains lathes, drills, presses, milling machines, planers, shapers, grinders and other common machine tools in the construction and repair of parts, tools, fixtures and machinery.
9. Operates gas and electric welding equipment in the manufacture or repair of instruments, communication system components and other equipment.
10. Repairs and manufactures parts for relays and electronically controlled instruments; cleans parts with chemicals and solvents; manufactures and repairs special tools and equipment necessary for instrument making activities.

QUALIFICATIONS:

"The examination announcement shall provide the qualifications...and other particulars...Applicants must be guided solely by the announcement of the examination for which they apply." (CSC Rule 9)

CLASS TITLE: MAINTENANCE MACHINIST ASSISTANT SUPERVISOR

CODE: 7337

QUALIFICATIONS: (Cont.)

Knowledge, Abilities, and Skills: Knowledge of the operation of machine tools and equipment; the proper methods of working and machining various metals and the manufacture of parts and equipment; the methods, materials, tools and equipment used in fabricating and installing related machines and equipment; machine shop safety precautions.

Ability to assign and inspect the work of subordinate personnel; read and work from plans, drawings and blue prints; prepare material/cost estimates; analyze manufacture problems; keep operational records and prepare related reports.

Skill in the operation of precision machine tools and equipment.

ADOPTED: 3-19-90

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SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: ELECTRICAL LINE WORKER

CODE: 7338

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled line work in the installation, maintenance and repair of overhead and underground line for police and fire alarm signal, traffic control, and communication systems, transit power lines or high voltage overhead transmission and distribution lines; and performs related duties as required.

Requires responsibility for: carrying out existing methods and procedures involving line construction, maintenance and repair activities; keeping routine records of work time and materials used. Nature of work involves considerable physical effort and dexterity in the use of fingers, limbs and body; frequent exposure to natural elements and working conditions where serious accidents or injuries may occur.

EXAMPLES OF DUTIES:

1. Installs, repairs and maintains high tension overhead transmission systems, related feeder lines, towers and poles; performs such maintenance activities when lines are energized as well as cold.

2. Installs and maintains underground cables and feeders and related auxiliary equipment.

3. Installs and maintains air raid sirens, fire alarm boxes, telephone systems, traffic signals, block and warning signals and lighting circuits; maintains alarm bells and telegraphic equipment in fire stations; trouble shoots, locates and repairs circuits in the communications systems.

4. Tests, inspects, repairs, and replaces traffic signal, fire alarm and police call boxes; patrols and inspects overhead lines and circuits to identify faulty or worn parts relative to necessary replacement and repair.

5. Operates power auger to dig pole holes; sets, plumbs and anchors poles; repairs and replaces cross-arms and related hardware and strings new transmission lines and wires.

6. Splices and makes repairs to aluminum and copper conductors; cleans and paints transmission, siren and radio towers and power line poles; patrols and inspects transmission lines and removes trees or other obstructions on line right-of-way.

7. Overhauls and replaces switches, circuit breakers and fuses; cleans and washes insulators with special "hot line" equipment.

8. May perform general electrical maintenance work on domestic and other type of wire facilities and equipment.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of journeymen level linemen experience in the construction, maintenance and repair of overhead and underground lines; or an equivalent combination of training and experience.

CLASS TITLE: ELECTRICAL LINE WORKER

CODE: 7338

Knowledge, Abilities and Skills: Requires good knowledge of the theory of electricity, particularly as applied to overhead and underground lines, including high voltage transmission lines; line construction and maintenance methods and procedures, including state general order number 95.

Requires knowledge of the practical application of pole-top resuscitation and first-aid methods.

Requires ability to: analyze and locate malfunctions in lines and makes necessary repairs; read and interpret plans and drawings; apply knowledge of tools and techniques to work on energized lines.

Requires considerable skill in the application of electrical theory and practice to field maintenance and repair problems; in climbing high poles and towers; in using rigging techniques applicable to transmission line work.

License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES:

To: Communication Lineman Foreman
Transmission Lineman Foreman
Transit Lineman Foreman

From: Original entrance examination

ADOPTED: 12/5/63

SAN FRANCISCO CIVIL SERVICE COMMISSION

JOB CODE TITLE: MAINTENANCE CONTROLLER

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JOB CODE: 7340

Business Unit: COMMN
SFMTA

Definition: Under general supervision, is responsible for overseeing the scheduling, maintenance and review of repairs of Municipal Railway vehicles. The Maintenance Controller works in a coordinative capacity, matching repair needs with available repair and maintenance resources, and viewing maintenance needs on a fleet-wide basis, as well as focusing on the needs of individual vehicles. Performs related duties as required.

Distinguishing Features:

This class is distinguished from Job Code 7241 Senior Maintenance Controller, in that the latter is responsible for supervising the work of all Maintenance Controllers, and for prioritizing and scheduling fleet-wide maintenance work assignments.

Supervision Exercised: none

Example of Important and Essential Duties: *According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this job code, and are not intended to be an inclusive list.*

1. Assesses maintenance staffing, equipment availability, maintenance and repair needs.
2. Maintains continuing awareness of maintenance and repair needs, using a variety of sources including computer reports, written data, files, parts availability, logs and vehicle records.
3. Schedules and dispatches personnel to specific duties and tasks related to maintenance/repair of equipment and vehicles, in conjunction with other personnel.
4. Tracks coach status and vehicle location, and coordinates the movement or placement of vehicles for repair.
5. Receives and logs road call requests, and dispatches service personnel on road calls.
6. Reviews work orders, warranty forms, and outside contract invoices, to coordinate maintenance activities with other departmental personnel.
7. Reads, analyzes, edits, and interprets maintenance source documents, computer print-outs and various reports.
8. Inputs and retrieves data, creates and works with spreadsheets, generates written reports/schedules pertaining to the emergency repair/routine maintenance and repair of vehicles.
9. Performs basic statistical and mathematical computations.
10. Interacts/communicates with contractors, vendors, and other departmental/City personnel.

Job Related and Essential Qualifications:

Knowledge of: the elements necessary to effectively plan, assign and schedule vehicle/equipment repair and maintenance; the equipment, parts, personnel and time needed to service/repair various vehicles, and the capabilities of various maintenance shops; how to interpret warranties and contact vendors/contractors.

Skills in: interacting with people in a manner that demonstrates concern for the individual and sensitivity to personal differences and feelings; establishing rapport; exercising tact and persuasion in dealing with other personnel, maintaining a professional manner and demeanor, effectively dealing with pressure; speaking in a precise, courteous and understandable manner, giving and receiving clear and concise information and instructions to a variety of people, using appropriate terminology when speaking about technical matters, listening with understanding/comprehension; writing clearly and effectively, maintaining accurate records of unit activities, reading, comprehending and interpreting documents; performing basic arithmetic and statistical functions, working with and/or creating mathematical spreadsheets, creating related files, generating statistical reports on the computer; inputting and retrieving data, creating and/or working with spreadsheets, and preparing/generating reports and daily production schedules.

Ability to: analyze, which includes perceiving patterns in maintenance repair needs or identifying unusual activities, correlating facts into a logical sequence and making logical decisions, recognizing relationships between multiple factors and knowing what types of action are appropriate to resolve specific problems or to accomplish assigned goals; to plan and organize, which includes identifying and establishing priorities, projecting goals, activities and timetables for specific projects, scheduling and coordinating tasks, resources and events into a logical manner; anticipating problems and proposing alternate courses of action, meeting goals and timetables, and promoting efficiency; to drive in an emergency, which refers to possessing a valid driver's license.

Experience and Training Guidelines:

1. Six years of experience in maintenance and/or repair of automotive equipment, three years of which must have been in fleet control operations; or
2. Eight years of experience in maintenance or repair of transportation equipment, three years of which must have been in fleet control operations.

Some positions may require possession of a valid driver's license.

Special Requirements: Incumbents work in a 24 hours a day/7 days a week operation, with rotating, holiday and/or weekend shifts. Nature of work may involve exposure to noisy conditions, fumes, smoke, and airborne particles.

Effective date: 4/9/84

Amended Date: 9/22/00

Reason for Amendment: To accurately reflect the current tasks, knowledge, skills, and abilities defined in the most recent job analysis conducted for this job code.

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

CLASS TITLE: STATIONARY ENGINEER, WATER TREATMENT PLANT 7341

DEFINITION:

Under general supervision and during a shift, operates, maintains and repairs a wide variety of complex machinery and equipment in a water treatment plant and/or pumping station or related facility. Performs related duties as assigned.

DISTINGUISHING FEATURES:

Class 7341 is the journey level class within the Stationary Engineer, Water Treatment Plant series. Carries out and explains established plant operations, methods and procedures. Maintains and prepares routine plant records and reports. Uses a respirator when conditions warrant. Climbs and works off ladders (up to 16 foot). Works in damp environments and confined spaces. Walks several miles a day to inspect facilities. Drives to facilities and remote pumping stations for inspection. Audits alarm screens. Identifies four levels of audible alarms. Identifies leaks by smell in case of emergencies.

SUPERVISION EXERCISED:

Class 7341 is distinguished from 7343 Senior Stationary Engineer, Water Treatment Plant in that journey level positions are limited to the technical supervision of apprentice positions within the classification series.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to 7341 Stationary Engineer, Water Treatment Plant and are not intended to be an inclusive list.

1. Operates and maintains a wide variety of chemical feed equipment, pumping, heating, ventilating, air conditioning, refrigeration, process machinery and radiators. May be required to operate Computerized Building Management Systems or Supervisory Control Data Acquisition (SCADA) systems.
2. Repairs automatic and manually controlled distribution and water treatment equipment including pumps, motors, boilers, compressors, alarm systems, residual chemical analyzers, chemical feeders and filters; may also be responsible for operating a water treatment and distribution facility in a safe and efficient manner without direct supervision.
3. Inspects and tests machinery and equipment including fire prevention equipment for safe, efficient and proper operation by visual and audio inspection during walk-throughs.
4. Makes entries and keeps records on shift operations. Collects, compiles and prepares water quality and operational reports by taking and entering meter and gauge readings, water and laboratory analysis readings and temperatures accurately in writing on operating log sheets.
5. Receives, records and stores large amounts of treatment chemicals and may handle hazardous chemicals such as ozone, fluoride, caustic soda and chlorine in confined or enclosed areas, and must be capable of safely and properly handling chemical spills; may include handling and treatment of hazardous waste.
6. Performs control tests and conducts water quality analysis during all phases of treatment. Includes pH, alkalinity, turbidity, saturation index, flocculation factors, conductivity, chlorine demand, caustic soda, chlorine, fluoride, ozone residuals, taste, odor and color. Calculates and maintains required disinfecting requirements.
7. Communicates verbally with craft, support and supervisory personnel.
8. May be responsible for keys, 2-way radios and security (in the absence of Security Personnel), in order to ensure the security of plant and buildings and grounds, including public safety.

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JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: the operation and maintenance requirements of a wide variety of water treatment plant machinery and equipment and the tools and equipment necessary to their proper care; applicable safety codes and regulations.

Ability to: comprehend orders and communicate clearly in person, by telephone and by radio; read and comprehend procedures, policies, blueprints, gauges, meters, records and logs; maintain records and logs; write log entries, memos and related job reports.

Skill in: the use of hand tools as necessary in the repair of machinery and equipment.

EXPERIENCE AND TRAINING GUIDELINES:

Four years journey-level Operator and/or Stationary Engineer experience in the maintenance, repair and operation of a variety of mechanical and electrical pumping and related plant machinery of a water or wastewater treatment plant; or four years journey-level experience as a Marine Engineer performing duties in the areas of maintenance, repair and operation of a variety of mechanical and electrical pumping and related machinery; or completion of a recognized four year Stationary Engineer apprenticeship program.

LICENSE OR CERTIFICATE:

1. Possession of a current valid Grade II Water Treatment Operator Certificate issued by the State of California.
2. Possession of a current valid Driver's License.

SPECIAL REQUIREMENTS: Some physical effort is required in the operation, repair and maintenance of machinery and equipment including kneeling, crouching, stooping, squatting and crawling in the performance of important and essential duties. This also includes exposure to working conditions where the performance of duties require working outdoors and with chemicals.

Effective Date: 7/27/94

Amended Date: 10/1/99

Reason for Amendment: To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this job code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: LOCKSMITH

CODE: 7342

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled locksmith work in connection with the installation, maintenance, adjustment and servicing of all types of locks, locking devices and related hardware; and performs related duties as required.

Requires responsibility for: explaining and carrying out existing methods and procedures related to all locksmithing operations; making routine contacts with other departments in connection with maintenance activities; preparing routine reports of time worked and materials expended.

EXAMPLES OF DUTIES:

1. Adjusts, repairs or replaces lock tumblers and combinations.
2. Selects key blanks, cuts by hand or machines and fits keys to locks; fabricates duplicate keys as required.
3. Opens locks where keys or combinations do not operate.
4. Devises and adjusts master key systems.
5. Performs work with such tools and equipment as lathes, drills, lock-picks and files.
6. Maintains key records and security of duplicate keys.
7. Adjusts, services, and repairs panic door hardware and door checks.
8. Rebuilds, services and performs related installation of locking equipment including overhead closers, automatic door closers and hold-backs of all kinds.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman locksmith; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: the design, construction, installation, maintenance, operation, repair and rebuilding of all types of locks; key code systems and the ability to decipher them; installing, adjusting and repairing of panic door devices and door checks.

Requires ability to: set up master key systems and fabricate master keys; formulate, operate and maintain key code systems; work from written plans and specifications;

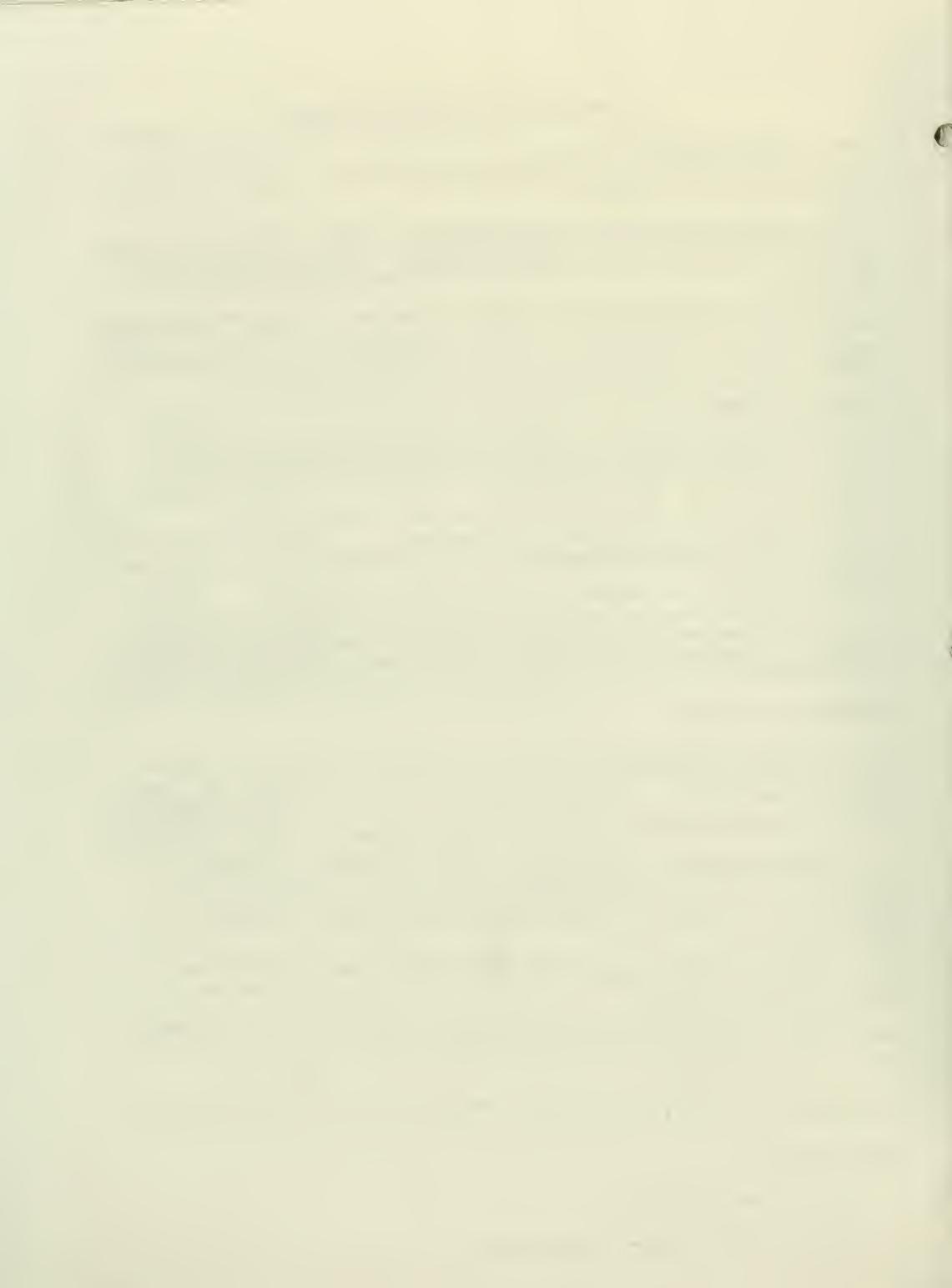
Requires considerable skill in the installation, maintenance, operation and repair or rebuilding of all types of locks and in the use of locksmithing tools and equipment.

License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES:

To: Locksmith Foreman

From: Original entrance examination



CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

APR - 5 2001

JOB CODE TITLE: SENIOR STATIONARY ENGINEER,
WATER TREATMENT PLANTSAN FRANCISCO
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JOB CODE: 7343**DEFINITION:**

Under general direction, on an assigned shift, supervises or participates in the operation, maintenance and repair activities of a wide variety of complex machinery and equipment in a water filtration plant, pump station or related facility. Personally participates in operation, maintenance and repair activities on machinery and equipment, acts as Chief Plant Operator when necessary, helps develop training plans and procedures and perform related duties as required.

DISTINGUISHING FEATURES:

This is the advanced journey level job code within the Stationary Engineer, Water Treatment Plant series. Positions at this level require the exercise of judgment in the performance of duties. It is distinguished from 7245 Chief Stationary Engineer, Water Treatment Plant by its scope of independence in the development or recommendation of operational and maintenance work procedures.

SUPERVISION EXERCISED:

The 7343 Senior Stationary Engineer, Water Treatment Plant is responsible for lead work and first line supervision to the 7341 Stationary Engineer, Water Treatment Plant.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

According to Civil Service Commission Rule 109.3.2, the duties specified below are representative of the range of duties assigned 7343 Senior Stationary Engineer, Water Treatment Plant and are not intended to be an inclusive list.

1. On an assigned shift, supervises or participates in the day-to-day operation of a water treatment plant in order to meet all state and federal water quality standards; sets daily operational parameters for treated water reservoir levels, chemical dosages, treatment methods and laboratory analysis.
2. Assists in planning and coordinating in-house maintenance and repair of all filter plant, field facility and ozone facility equipment.
3. Assists in planning and coordinating work to be performed by employees of other trades, crafts, divisions and contractors; initiates work orders, inspects and review completed work.
4. Conducts safety and hazardous material management training sessions; prepares accident reports; orders and maintains safety and hazardous materials supplies.
5. Purchases routine material, supplies and water treatment chemicals; maintains inventories; maintains safe storage of chemicals.
6. May train, evaluate and discipline subordinate staff.
7. May set daily work schedules and job priorities.
8. May supervise the operation of a computerized water distribution system; makes remote chemical adjustments to meet state and federal water quality standards.

**JOB CODE TITLE: SENIOR STATIONARY ENGINEER,
WATER TREATMENT PLANT**

JOB CODE: 7343

JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: the operation and maintenance requirements of a wide variety of pumping, heating, ventilating and related plant machinery and equipment and the tools and equipment necessary for their proper care; applicable safety codes and regulations; bacteriological and chemical tests required at various phases of water treatment.

Ability to: analyze, operate, repair and maintain a variety of pumping, heating, ventilating and similar types of plant machinery and equipment; assign, supervise and inspect the work of subordinate personnel; prepare and maintain plant operating records and related reports.

Skill in: use of hand tools and maintenance and repair equipment.

EXPERIENCE AND TRAINING GUIDELINES:

1. Five (5) years verifiable journey-level Stationary Engineer and/or Operator experience in the operation, maintenance, repair of a variety of mechanical electrical, pumping, and related machinery of a water or wastewater treatment plant, three (3) years of which must be in a surface water treatment plant; **OR**
2. Completion of a recognized four-year Stationary Engineer apprentice program, plus one (1) year journey level experience in a Water Treatment Plant; **AND**
3. Possession of a current valid Grade IV California Water Treatment Plant Operator Certificate. Applicants who currently possess a Grade III California Water Treatment Plant Operator Certificate may participate in the examination but will remain under waiver of appointment on the eligible list until proof of Grade IV is submitted.
4. Possession of a current valid Class C driver's license.

Note:

Upon appointment to Class 7343 employees may be required to take a state mandated respirator and self-contained breathing apparatus (SCBA) medical examination (renewed annually) and be clean shaven for respirator and self-contained breathing apparatus use. Employees may be required to pass CPR training annually and first-aid training tri-annually.

Effective Date: 7/27/94

Amended Date: 3/21/01

Reason for Amendment: To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this job code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: CARPENTER

CODE: 7344

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled carpentry work in connection with the maintenance and repair of city structures, installations and facilities; and performs related duties as required.

Requires responsibility for: explaining and carrying out existing methods and procedures relative to maintenance and repair activities; making occasional contacts with other departmental personnel and outside organizations in connection with carpentry activities; preparing routine records and reports of time worked and materials used.

EXAMPLES OF DUTIES:

1. Performs carpentry duties in connection with a wide variety of building alterations, maintenance and repair projects and other appurtenant and miscellaneous structures; builds and erects stairs, partitions, barricades, sheds, concrete forms, bleachers, scaffolding, fences and other items.
2. Lays and renewes floors, baseboards, and moulding in offices, shops or transit equipment.
3. Repairs desks, tables, chairs, sashes, doors, roofs, stairs and hand rails.
4. Installs locks, door checks, springs, transom blocks, panic bars and other hardware.
5. Operates power driven shop woodworking machinery and equipment.
6. Reads blueprints and work orders and follows other written or verbal instructions on the kind and extent of carpentry work to be done.
7. Plans work program and sequences; assembles lumber and tools needed for an assigned project.
8. May measure and prepare estimates for carpentry repairs.
9. Prepares routine work records.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman carpenter; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: general carpentry work in maintenance and repair projects; the use of carpentry tools, power driven woodworking machinery and equipment.

Requires ability to: read blueprints and work from drawings and sketches; work well with others; keep simple records.

Requires considerable skill in the use of tools and materials of the trade.

PROMOTIVE LINES:

To: 7226 Carpenter Supervisor I

From: Original entrance examination

Retitled: 7/1/77

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SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: ELECTRICIAN

CODE: 7345

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled electrical work in connection with the maintenance, repair and alterations of electrical systems, machinery and equipment; may exercise work direction over craftsmen helpers involved in such work; and performs related duties as required.

Requires responsibility for: explaining and carrying out methods and procedures relative to electrical maintenance and repair work; preparing routine reports of work accomplished and time expended on maintenance and repair activities. Nature of work involves: some physical effort and dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where minor injuries may be encountered.

EXAMPLES OF DUTIES:

1. Performs electrician duties in connection with a wide variety of building alterations, maintenance and repair projects and other appurtenant and miscellaneous structures; installs, maintains and repairs electrical lighting and power circuits, fixtures, motors and other related electrical equipment.
2. Makes inspections and repairs of generating equipment and its auxiliary appurtenances.
3. Maintains, adjusts and repairs circuit breakers and related operating equipment.
4. Tests and repairs various types of relays and regulators.
5. Makes electrical installations, maintenance and repairs in connection with traffic signal and internal communication systems.
6. Prepares and installs traffic signals circuits and signal control equipment.
7. Maintains and repairs auxiliary lighting systems, fire and police alarm systems, and teletype installations.
8. Prepares and submits time and material used reports on work accomplished.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman electrician in electrical maintenance, repair or construction work; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: various types of electrical equipment and installations and of the tools, materials and equipment necessary to the maintenance and repair of such installations; existing safety codes, ordinances and regulations.

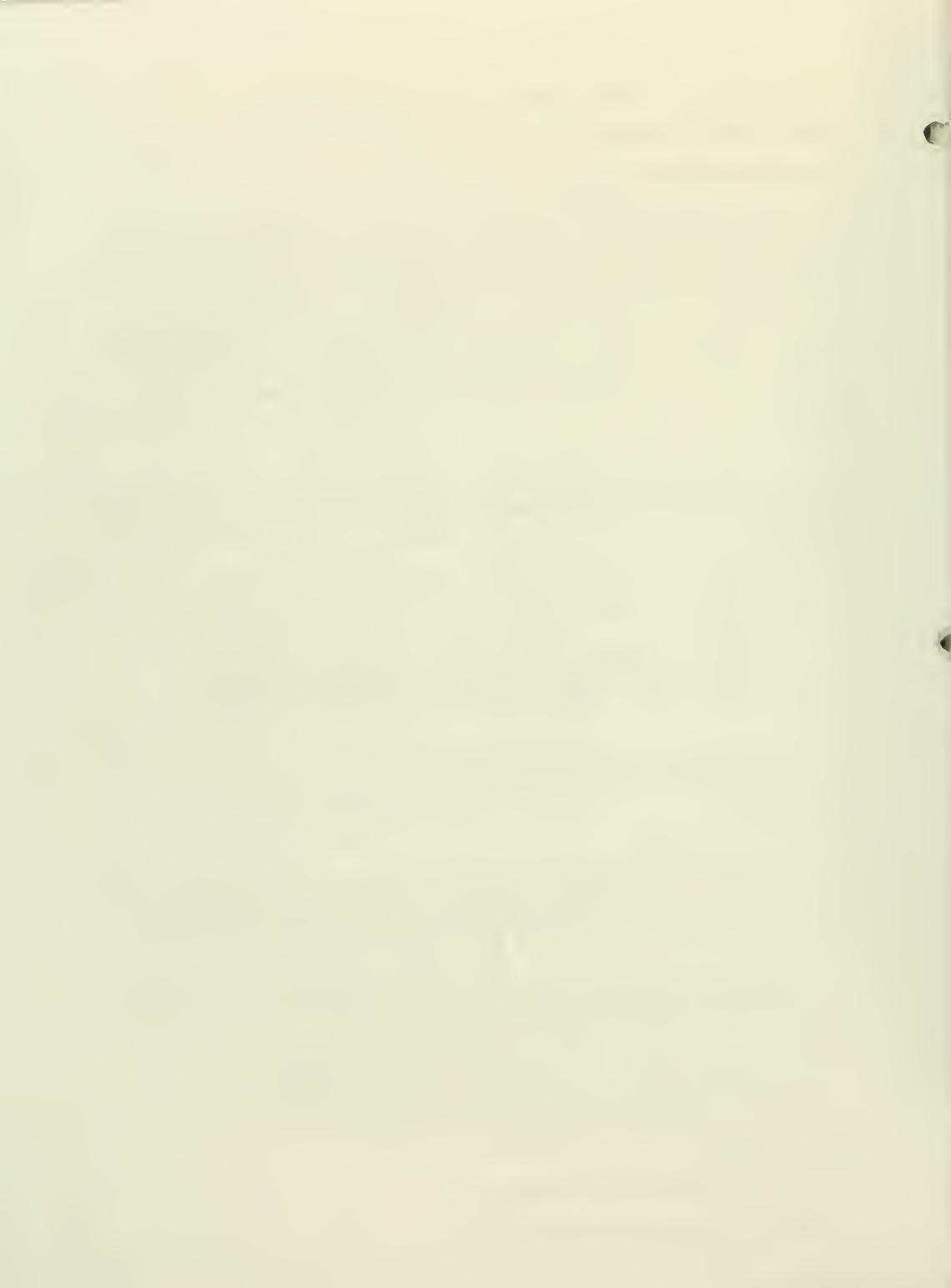
Requires ability to: work from drawings, sketches and blueprints; maintain routine records and reports on work accomplished.

Requires considerable skill in the use and handling of electrical equipment and tools used in the electrical trade.

PROMOTIVE LINES:

To: 7238 Electrician Supervisor I

From: Original entrance examination



CIVIL SERVICE COMMISSION OF SAN FRANCISCO

(AMENDS SPECIFICATION)

CLASS TITLE: PAINTER

CODE: 7346

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled painting work on exteriors and interiors of buildings, structures and equipment; and performs related duties as required.

Requires responsibility for: Following established methods and procedures. Nature of work involves: Sustained physical effort with considerable standing, bending and occasionally heavy lifting; intermittent exposure to hazardous heights and poorly ventilated areas.

EXAMPLES OF DUTIES:

1. Applies paints and other surface preservatives to the exterior or interior of buildings, including painting and finishing of partitions, window casings, doors, cabinets, cases and woodwork; paints street equipment, playground facilities and other outdoor structures.
2. Prepares surfaces for painting, including erecting and hanging scaffolding; removes all paint or varnish by scraping, burning or sanding; washes, cleans and patches surfaces and otherwise prepares surfaces for painting.
3. Mixes and prepares paints, lacquers, varnishes, calcimines, shellacs and other preservatives; selects and blends colors in proper proportions.
4. Operates and maintains spray guns and other equipment.
5. Occasionally performs more exacting painting, including lettering and touch-up work.
6. May occasionally plan work programs, including estimating and ordering materials and equipment required for assigned project.
7. Prepares simple time and work records and reports.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of eighth grade, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman painter; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: The materials, tools and techniques of the painter's trade; the properties of various types of paint and their applications to a variety of surfaces; mixing and blending of paints and pigments; painting safety practices, including the rigging and use of scaffolds.

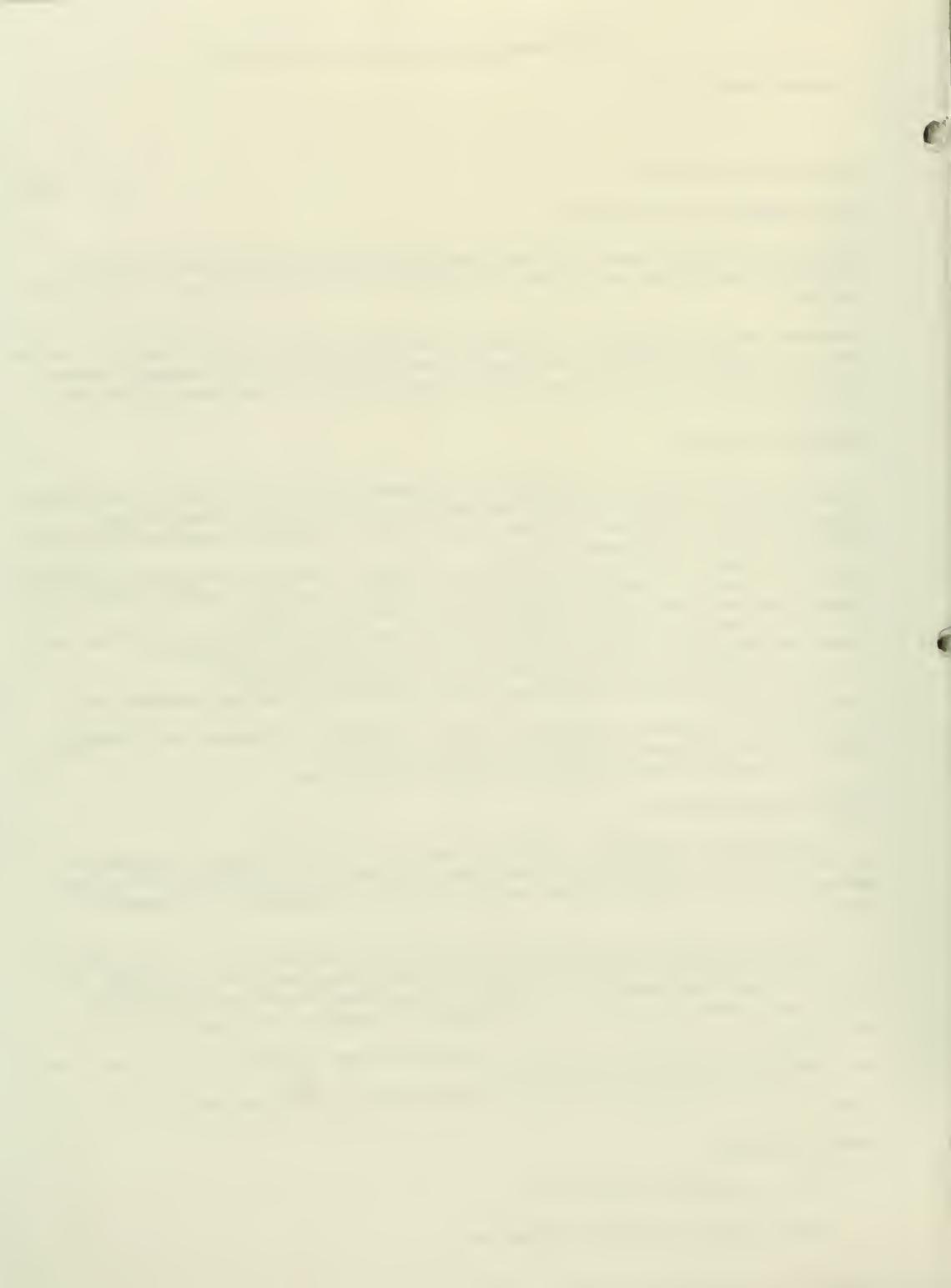
Requires considerable ability to: Mix, match and harmonize colors; erect and work from scaffolding and high places.

Requires considerable skill in the use of the tools and materials of the trade.

PROMOTIVE LINES:

To : 7242 Painter Supervisor I

From: Original entrance examination



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: PLUMBER

CODE: 7347

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled plumbing work in the alteration, repair and maintenance of water, sewer and other plumbing systems; and performs related duties as required.

Requires responsibility for: following established plumbing methods and procedures. Nature of work involves: considerable physical effort and intermittent exposure to working conditions which may produce minor cuts, bruises, and abrasions; somewhat unpleasant physical and working surroundings, such as lack of adequate ventilation, cramped quarters and toxic conditions.

EXAMPLES OF DUTIES:

1. Performs plumbing duties in connection with a wide variety of building alterations, maintenance and repair projects and other appurtenant and miscellaneous structures; installs, alters, replaces and repairs plumbing, such as water, sewage and drainage systems.

2. Cuts, bends, assembles and installs various pipes, fittings and fixtures for water, sanitary, drainage, heating, gas and other plumbing systems which involve the performance of hand, bench and maintenance plumbing tasks.

3. Installs, alters, repairs or replaces plumbing fixtures, including sinks, basins, and drinking fountains.

4. Threads, reams, assembles, caulk, solders and welds various pipes and component parts.

5. Installs, alters and repairs valves, fittings and other plumbing parts and equipment, including such items as hot water boilers, sterilizers, steam tables, sinks, thermal control apparatus, sprinkler heads, hydrants and service pipes.

6. Repairs and installs new water and drainage lines and waste and sewage pipes.

7. Checks plumbing fixtures for leaks and other defects; opens and cleans clogged drains, pipes and traps; wipes and flushes joints.

8. Advises on selection, ordering and storing of plumbing supplies and equipment.

9. Maintains simple working records and reports.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman plumber; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: the practices, methods, tools and materials of the plumbing trade; applicable sanitary and safety codes and ordinances; occupational hazards and the techniques of safety precautions.

Requires ability to: interpret and work from blueprints, sketches and drawings; plan and lay out details of work; work well with others; estimate materials and labor costs for plumbing jobs.

CLASS TITLE: PLUMBER
(continued)

CODE: 7347

Requires considerable skill in the use of the tools, materials and equipment of the plumbing trade.

PROMOTIVE LINES:

To: Plumber Foreman

From: Original entrance examination

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CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCESSAN FRANCISCO
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JOB CODE TITLE: STEAMFITTER

JOB CODE NO: 7348
Business Unit: COMMN**DEFINITION:**

Under supervision, performs highly skilled, journey-level steamfitter duties in altering, maintaining, repairing, inspecting and installing steam heat and steam power installations and other equipment such as pumps, compressors, boilers and steam power lines; and performs related duties as required. Nature of work involves some physical effort and manual dexterity in the use of the fingers, limbs and body.

EXAMPLES OF DUTIES:

According to Civil Service Commission Rule 9, the duties specified below are representative of the duties assigned to this class and are not intended to be an inclusive list.

1. Alters, maintains, repairs, inspects and installs the following: all piping fixtures, pumps and/or appurtenances; all steam or hot water boilers of any type; pipefitting and any related piping systems including fixtures and/or appurtenances associated with steam plants and/or steam systems; hot water heating systems connected with high or low pressure steam plants including all piping, fitting and fixtures and/or appurtenances of every description; all control systems including but not limited to pneumatic, electric, electronic, DDC and related systems; HVAC systems and all piping fixtures and/or appurtenances of every description associated with it and related equipment; all types of piping fixtures and/or appurtenances related to all refrigeration systems; chillers, all chilled water systems; cooling systems; and all CFC certification requirements; cooling towers; all process piping; chemical treatment systems; air compressors; expansion tanks; and oil and gas fired equipment.
2. Cuts, threads and grooves steel pipe; cuts, bevels, fits up and tack welds steel pipe; solders and brazes copper & brass pipe and fittings.
3. Installs, replaces and repairs pipe covering/insulation.
4. Makes rough sketches and prepares material list using figure 4 or isometric drawings.
5. Keeps records of time spent and work completed.
6. Uses trade related hand, power and pneumatic tools to alter, maintain, repair, inspect and install steam heat and steam power installations and other equipment.
7. Operates motor and utility vehicles such as forklift, scissors lift, high ranger and/or other specialized equipment to move materials to and out of work sites.
8. Lifts and moves heavy objects, up to 100 lbs. including equipment, machinery parts and heavy tools to appropriate work areas.
9. Communicates with a variety of individuals including supervisors, tenants, and general public regarding steamfitting operations and procedures.
10. Performs other related duties as required.

Job Related and Essential Qualifications:**Knowledge of:**

Methods and procedures used to alter, maintain, repair, inspect and install steam heat, steam power installations, pumps, compressors, boilers, pneumatic controls, HVAC systems, refrigeration systems; high temperature hot water heating systems and steam power lines, and combustion control systems including welding; applicable safety codes, rules and regulations relating to practices and procedures governing the safe operation of high and low pressure boilers and safety controls.

Ability to:

Write clearly, concisely and effectively; complete work orders, sketches and drawings; use trade related hand, power and pneumatic tools; communicate orally to exchange spoken information in a clear, concise, organized, effective and relevant manner; promote and maintain harmonious working relationship with coworkers, other departmental staff and the public; read blueprints and understand construction drawings; move and lift up to 100 lbs.; drive utility vehicles.

Experience and Training:

Completion of a five year accredited steamfitters' apprenticeship program and two (2) years verifiable experience as a journey-level steamfitter as it relates to Uniform Building codes and the American Society of Mechanical Engineers (A.S.M.E.) or a combination of apprenticeship and journey level experience totaling seven years.

License/Certificate: Possession of a valid driver license. Some positions may require valid certification of Chloroflourocarbon (C.F.C. – type I and II) as required by the Environmental Protection Agency (EPA). This certification must be obtained within one year of appointment.

Special Requirements: Nature of work involves some physical effort and manual dexterity in the use of the fingers, limbs and body. Safety rules and regulations are a primary consideration in the nature of the work that is performed within this job code. Duties may require working at heights; working on confined spaces; possible exposure to hazardous materials, infectious waste, asbestos and other health hazards.

Effective date: 2/23/61

Amended: 1/28/00

Reason for amendment. To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job code.

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

JOB CODE TITLE: STEAMFITTER SUPERVISOR I

JOB CODE: 7349
Business Unit: COMMN

DEFINITION: Under direction, supervises the work of a group of steamfitters and other craft workers engaged in a variety of projects related to the installation, maintenance and repair of steam/hydronic boilers and heating, cooling and ventilating systems.

DISTINGUISHING FEATURES: Incumbents in Class 7349 supervise the work of a group of journey-level steamfitters and related craft workers. This class is distinguished from Class 7248 Steamfitter Supervisor II in that the latter performs higher level, more complex, difficult duties and exercises supervision over a large group or several small groups of steamfitters and related craft workers.

SUPERVISION EXERCISED: Supervises a group of steamfitters and related craft workers.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES: According to Civil Service Commission Rule 109, the duties specified below are representative of the duties assigned to this class and are not intended to be an inclusive list.

1. Supervises a group of journey-level workers engaged in a variety of installation, maintenance and repair projects on steam/hydronic boilers and heating, cooling and ventilating systems, and any related appurtenances or components to ensure that work is completed in a timely and safe manner. Prioritizes tasks to be completed by assigned staff, allocates work assignments and ensures timely completion of work; monitors attendance, signs timesheets and overtime requests; evaluates the performance of subordinate personnel; documents and confers with employees on attendance, performance and behavior issues; makes recommendations for further disciplinary action as needed. Provides on-the-job training to new workers and ongoing technical training and consultation for all assigned staff.
2. Inspects ongoing and completed work related to the installation, maintenance, repair, alteration and adjustment of steam/hydronic boilers and heating, cooling and ventilating systems, including pumps, piping and other related components and apparatus, to ensure that work is completed according to established specifications, plans, standards and instructions. Ensures worksite safety by adhering to established industry safety standards and monitoring the work of assigned staff; conducts safety training sessions; investigates and prepares reports on work-related accidents; prepares and maintains codes of safe job practices; maintains records of MSDS information and hazardous material inventory.
3. As necessary in order to instruct staff, may perform steamfitting work, including the more difficult, complex and skilled work in the installation, maintenance, repair, alteration and adjustment of steam/hydronic boilers and heating, cooling and ventilating systems. Interprets and works from prepared plans, drawings and blueprints; makes rough sketches of work to be completed to ensure adherence to established plans and safety standards. Operates a variety of motor and utility vehicles to transport crew and/or equipment and materials to work sites.
4. Maintains contact with other departmental personnel; members of other crafts, outside agencies, vendors and contractors for coordination and effective scheduling and completion of work.
5. Orders, locates and maintains stock of materials for use in the installation, maintenance and repair of steam/hydronic boilers and heating, cooling and ventilating systems, including pumps, piping and other related components and apparatus; ensures availability and working condition of tools and equipment necessary to complete jobs; generates purchase orders.
6. Estimates cost of various jobs related to the installation, maintenance, repair, alteration and adjustment of steam/hydronic boilers and heating, cooling and ventilating systems, including pumps, piping and other related components and apparatus; prepares written cost estimates for labor, material and equipment;

receives/prepares work orders. Prepares and maintains records of time worked and materials expended by assigned staff; maintains operating and inspection records for reference and/or permit requirements.

- 7. When authorized, assumes responsibility for the care and maintenance of the steam/hydronic boilers and heating, cooling and ventilating equipment of given plant; establishes and/or carries out a maintenance inspection schedule and preventative maintenance program; coordinates response to emergencies as required.
- 8. Performs related duties as required.

JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: methods, procedures and practices used to install, maintain, alter and repair steam/hydronic boilers and heating, cooling and ventilating systems, including pumps, piping and other related components and apparatus; proper and effective use of tools, equipment and materials; basic physical, structural and functional characteristics and specifications of steam/hydronic boilers and heating, cooling and ventilating systems; job-related technical codes and regulations and established steamfitting industry standards; methods and procedures to ensure safety when working with steam/hydronic boilers and heating, cooling and ventilating systems.

Ability to: identify, analyze and formulate effective solutions to work-related problems; perform basic arithmetic functions to measure and complete work assignments and estimate cost of repairs and installations; supervise a group of steamfitters, including training new workers; deal courteously and effectively and establish and maintain good working relationships with a variety of individuals; clearly and accurately communicate work-related information to crew members, supervisors and other departmental personnel; write clearly and effectively in order to prepare a variety of work-related records and reports; read interpret and understand technical manuals, code books, blueprints, plans and construction drawings; drive a motor vehicle.

EXPERIENCE AND TRAINING GUIDELINES:

Completion of a recognized five-year steamfitters' apprenticeship program **AND** three years verifiable journey-level experience as a steamfitter engaged in the installation, maintenance and repair of steam/hydronic boilers and heating, cooling and ventilating systems equivalent to those of City departments;

OR

An equivalent combination of verifiable apprenticeship and journey-level experience totaling eight years.

LICENSE: Current California driver license.

SPECIAL REQUIREMENTS: Essential duties require the following physical skills and work environment: physical effort, including walking, standing, bending and crouching, and dexterity in the use of fingers, limbs and body; ability to lift and carry objects weighing up to 50 lbs.; working at heights or in confined spaces; exposure to working conditions where minor abrasions, bruises and burns may be encountered; and possible exposure to inclement weather, hazardous materials, and ~~DOCUMENTS DEPT~~.

Effective Date: July 16, 1973

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Amended Date: May 17, 2002

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Reason for amendment: To accurately reflect the current task, knowledge, skills and abilities defined in the most recent job analysis conducted for this class.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: MEAT CUTTER

CODE: 7350

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled work in connection with receiving, inspecting, cutting and storing of meat; and performs related duties as required.

Requires responsibility for: maintaining simple records of meat cutting operations and supplies required. Nature of work requires: some physical effort involving considerable standing and occasionally heavy lifting.

EXAMPLES OF DUTIES:

1. Receives, inspects and stores meat, poultry and fish.
2. Performs meat cutting operations in reducing animal carcasses into portions suitable for cooking and serving.
3. Cuts, bones, trims, grinds, cures, stores and refrigerates beef, veal, lamb and pork.
4. Uses hand and power equipment, such as cleavers, knives, saws, slicers and grinders.
5. Prepares, cuts and portions poultry and fish.
6. May use tenderizers when required or desirable.
7. Cleans and maintains equipment and utensils; maintains premises in safe and sanitary condition.
8. Confers with, and advises superiors regarding the meat requirements of the institution.
9. Prepares required reports and maintains various records of meat cutting operations and replenishments.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and five years of experience as a journeyman butcher; or an equivalent combination of training and experience.

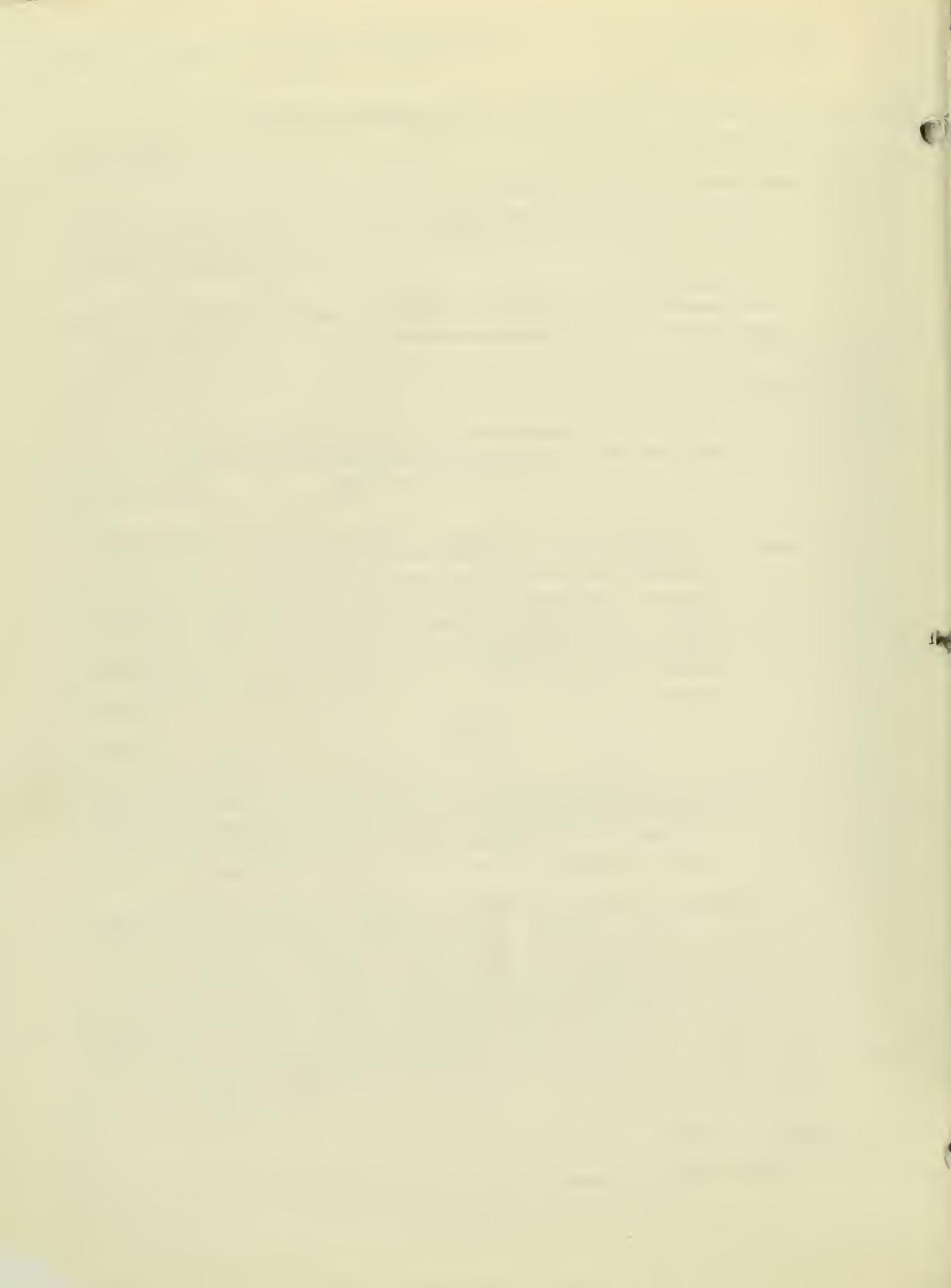
Knowledge, Abilities and Skills: Requires good knowledge of: methods pertaining to storing and cutting meat, poultry and fish; proper utilization and care of hand and power meat cutting equipment; types of standard cuts of meats, poultry and fish; sanitation, cleaning and safety precautions in meat cutting operations.

Requires ability to: break down and cut all types of meat into suitable serving portions in an economical manner; recognize the quality and condition of meat, poultry and fish, particularly to its fitness for human consumption; utilize all portions of the animal carcass with least waste; requires considerable skill in the use and operations of hand and power equipment of the trade.

PROMOTIVE LINES:

To: Head Meat Cutter

From: Original entrance examination



CLASS TITLE: HEAD MEAT CUTTER

CODE: 7351

CHARACTERISTICS OF THE CLASS:

Under direction, performs skilled work in connection with the receiving, inspecting, cutting and storing of meat; exercises work direction over subordinate meat cutters engaged in such work; and performs related duties as required.

Requires responsibility for: carrying out and enforcing methods and procedures related to storing and cutting of meat; maintaining records and reports reflecting purchases, meat cutting operations and required supplies. Nature of work requires some physical effort involving considerable standing and occasional heavy lifting.

EXAMPLES OF DUTIES:

1. Requisitions, receives, inspects and stores meat, poultry and fish.
2. Performs meat cutting operations in reducing animal carcasses in proportions suitable for cooking and serving.
3. Cuts, bones, trims, grinds, cures, stores and refrigerates beef, veal, lamb and pork.
4. Uses, cleans and maintains hand and power equipment such as cleavers, knives, saws, slicers and grinders; maintains work areas in safe and sanitary condition.
5. Prepares, cuts and portions poultry and fish.
6. May use tenderizers when required or desirable.
7. Inspects refrigerated facilities to see that they are adequate for freezing and holding food supplies.
8. Confers with, and advises superior regarding the meat, poultry and fish requirements of the institution, and keeps inventory control and operational records.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by four years of journeyman level meat cutting experience, including one year of supervisory experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: standard cuts of meat; the use of the tools and equipment of the trade; methods of storing and cutting meat, poultry and fish.

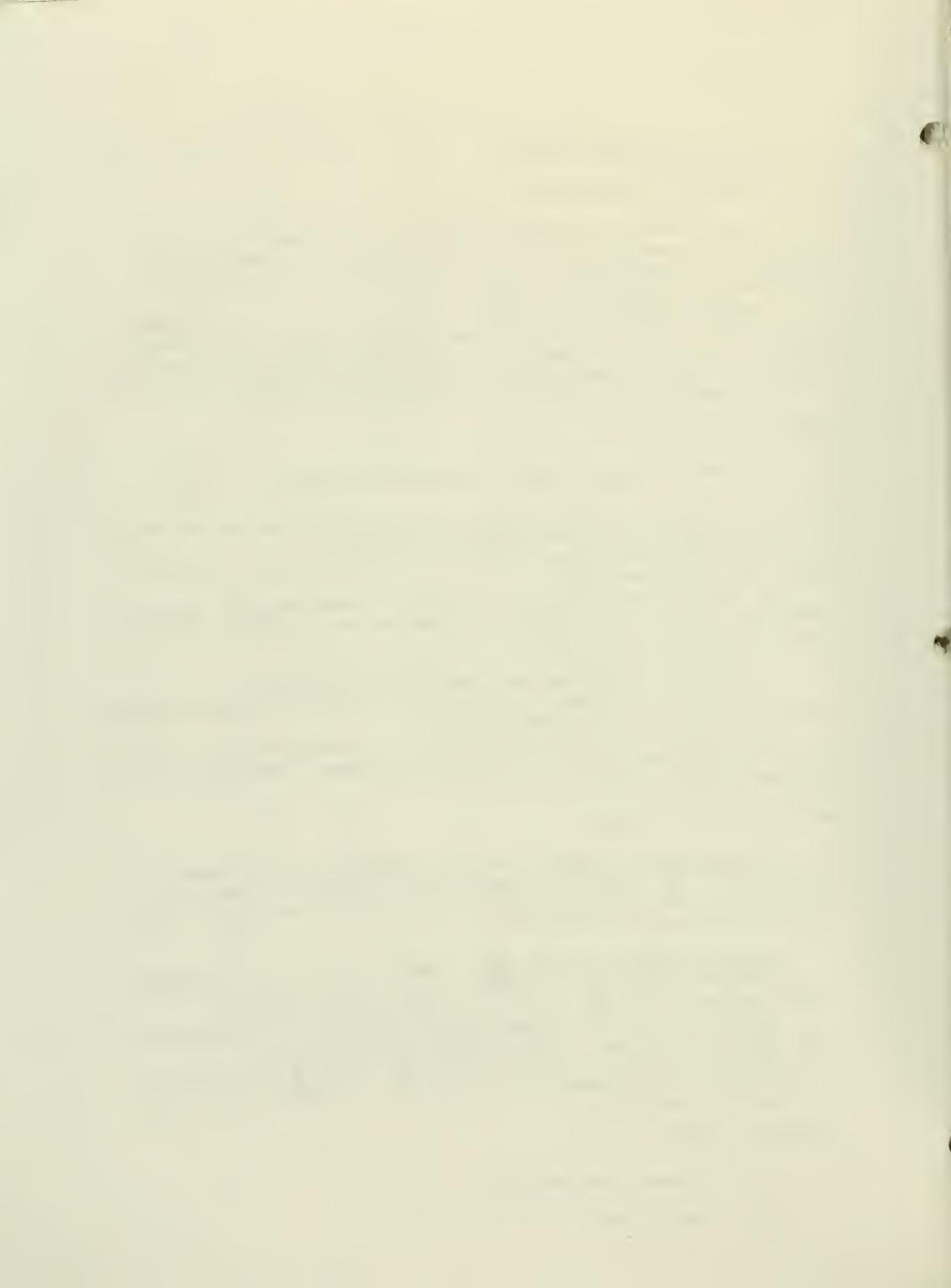
Requires ability to: supervise and inspect work of subordinates; make simple reports and maintain routine operating records.

Requires considerable skill in the application of the practices and techniques of the trade in the care and use of meat cutting tools, equipment and facilities.

PROMOTIVE LINES:

To: No normal promotive lines

From: Meat Cutter



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: WATER METER REPAIRER

CODE: 7353

CHARACTERISTICS OF THE CLASS:

Under supervision, performs skilled duties in overhauling, repairing, testing and calibrating water meters, involving both shop and field operations; and performs related duties as required.

Requires responsibility for: carrying out existing methods and procedures as applied to shop and field repairs of faulty water meters; making routine contacts with the general public, consumers, tenants and property owners; preparing routine records and reports indicating time and work accomplished in repairing and processing meters. Nature of work involves sustained physical effort involving continuous shop work or occasional heavy field work, including manual effort and dexterity, with continuous exposure to minor accident hazards and some disagreeable elements.

EXAMPLES OF DUTIES:

1. While assigned to shop work, overhauls and repairs various types, makes and sizes of water meters; repairs and converts gear train assemblies; repairs reading registers, measuring chambers and assemblies; uses manometer for checking and measuring processes; assembles and lubricates meters; installs register box assembly; tests and calibrates meters; records work on meter repair cards and other forms.

2. While in the field, repairs large diameter compound water meters; shuts off inlet and outlet gate valve, removes meter cover; cleans and replaces chambers and gear trains as necessary; removes drop valves to clean meter housing; cleans, adjusts or replaces turbine when necessary; re-assembles meter and replaces other broken or defective parts; checks repaired meter for correct operation; prepares forms and reports of work accomplished.

3. Performs other field repair work such as replacing cement and steel meter covers and changing water meter registers; repacks water meter spindles, stops leaks and performs other miscellaneous maintenance and repair tasks as required; prepares related forms and reports of work accomplished.

4. Assembles four to eight inch fire service detector checks, using meter couplings, pipe nipples, fittings, stop cocks and check valves.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of experience as a meter repair helper and/or meter reader; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires thorough knowledge of: the maintenance and operation of various types, makes and sizes of water meters; the special equipment, tools, methods and procedures for repairing faulty and damaged meters, both in the shop and in the field; the equipment, methods and procedures for testing and calibrating water meters.

CLASS TITLE: WATER METER REPAIRER

CODE: 7353

PROMOTIVE LINES:

TO: Water Meter Shop Supervisor I

FROM: Water Meter Repair Helper

Retitled: 7-1-77

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: TRUCK DRIVER, HEAVY

CODE: 7354

CHARACTERISTICS OF THE CLASS:

Under general supervision, operates various types of trucks more than 4 yards or 12,000-pound capacity and other motorized equipment in connection with construction and maintenance activities and the hauling of men, materials and supplies; and performs related duties as required.

Requires limited responsibility for: making routine contacts with other departmental personnel and outside organizations in connection with equipment operations and activities; nature of work requires considerable physical effort in the handling of equipment and materials.

EXAMPLES OF DUTIES:

1. Drives various types of trucks in transporting men, equipment, materials and supplies on a wide variety of construction and maintenance activities.
2. Drives dump trucks; hauls dirt, rock, aggregates, asphalt, broken concrete and other materials to and from projects.
3. Operates street sweepers and multiple unit power mowers in the cleaning of streets and lawn mowing activities.
4. Operates trucks in pulling trailers, compressors, pumps and other types of equipment.
5. Operates street flushing, catch basin educting and mounted air compressor equipment.
6. Maintains records of vehicle operations; may operate two-way mobile radio units.
7. May also wash and lubricate vehicle, service with water and oil and change tires.
8. May assist in loading, unloading and delivering of materials, supplies and equipment.
9. May operate snow removal equipment, winch trucks and semi-trailers, as necessary.
10. May drive light trucks.
11. Loads, unloads, hoists, carries and delivers school furniture, supplies and equipment into classrooms and office areas.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by at least four years of experience in the operation of various types of moderately heavy and complex motor equipment; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: operation, preventive maintenance and servicing requirements of various types of motor vehicles and equipment; existing traffic laws, rules and regulations.

Requires ability to follow oral and written instructions.

Requires considerable skill in the operation of trucks and other motorized equipment, involving considerable physical effort.

License: Requires possession of a valid state chauffeur's license.

CLASS TITLE: TRUCK DRIVER, HEAVY
(Continued)

CODE: 7354

PROMOTIVE LINES:

To: No normal lines of promotion

From: 7337 Truck Driver, Light
Original Entrance Examination

AMENDED: 6/16/66

SAN FRANCISCO CIVIL SERVICE COMMISSION

(NEW CLASS)

CLASS TITLE: TRUCK DRIVER

CODE: 7355

CHARACTERISTICS OF THE CLASS:

Under general supervision, operates various types of motor vehicles and other automotive equipment in connection with construction and maintenance operations and the delivery of supplies and materials. Loads and unloads materials and supplies; may perform routine servicing of vehicles and performs related duties as required.

Requires responsibility for: Making routine contacts with other departmental personnel and outside organizations in connection with equipment operations and activities; nature of work requires considerable physical effort in handling equipment and materials.

EXAMPLES OF DUTIES:

1. Drives motor vehicles in hauling and delivering materials and supplies on a wide variety of construction and maintenance activities.
2. Drives motorized equipment in connection with the maintenance of grounds and athletic fields or other construction and maintenance activities.
3. Drives dump trucks; hauls dirt, rock, aggregates, asphalt, broken concrete and other materials to and from projects.
4. Operates street sweepers and multiple unit power mowers.
5. Operates trucks in pulling trailers, compressors, pumps and other types of equipment.
6. May operate snow removal equipment, winch trucks and semi-trailers as necessary.
7. May assist in loading, unloading and delivering of materials, supplies and equipment.
8. Loads, unloads, hoists, carries and delivers school furniture, supplies and equipment.
9. May wash and lubricate vehicle, service with water and oil, change tires.
10. Operates street flushing, catch basin educting and mounted air compressor equipment.
11. May operate rapid telephone equipment.
12. May make routine purchases from vendors.
13. May perform clerical and office tasks when not operating assigned vehicle, and prepare daily reports on gasoline and mileage of vehicle.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by at least three years of experience in the operation of various types of moderately complex motor equipment, or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: Operation, preventative maintenance, and servicing requirements of various types of motor vehicles and equipment, existing traffic laws, rules and regulations.

Requires ability to: Follow oral and written instructions; perform work involving physical effort.

Requires considerable skill in the operation of trucks and other motorized equipment.

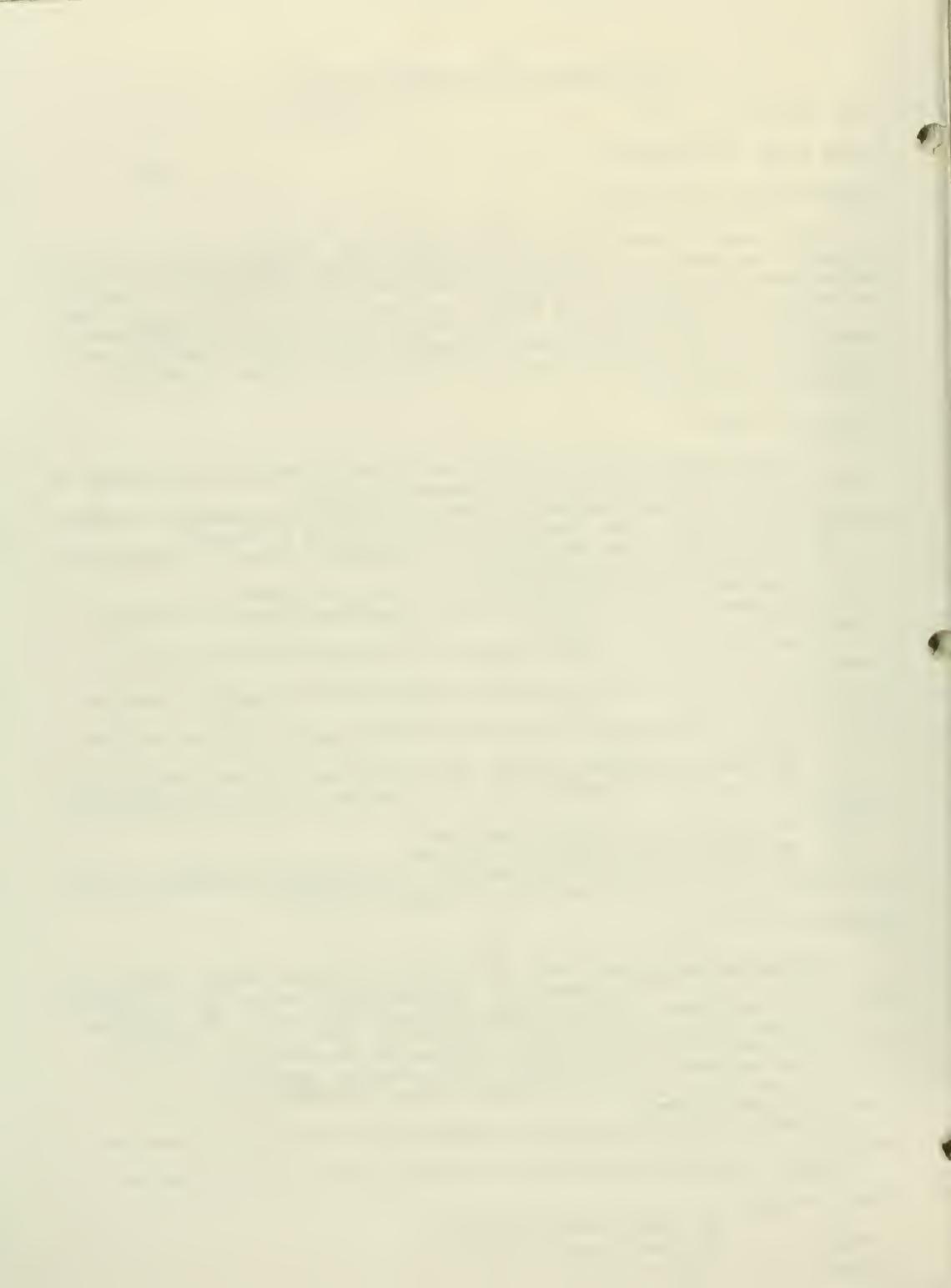
License: Requires possession of a valid state class II drivers license.

PROMOTIVE LINES:

To : No normal lines of promotion

From : Original entrance examination

ADOPTED : July 10, 1972



CLASS TITLE: MUSEUM PRINTER

CODE: 7357

CHARACTERISTICS OF THE CLASS:

Under general supervision, operates the museum printshop and prints brochures, announcements, exhibition labels and similar materials; maintains equipment and shop supplies; and performs related duties as required.

Nature of work requires some physical effort and considerable manual dexterity in setting up printing operations.

EXAMPLES OF DUTIES:

1. Designs layout, sets type, selects materials and operates platen presses in the printing of museum brochures, announcements, exhibit labels, stationery, signs, forms and postcards of painting and sculpture reproductions.

2. Maintains and makes minor repairs to equipment; selects and orders materials and supplies; keeps job cost records.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by the successful completion of an apprenticeship program as a platen printing pressman; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of the principles and techniques in platen printing press operations.

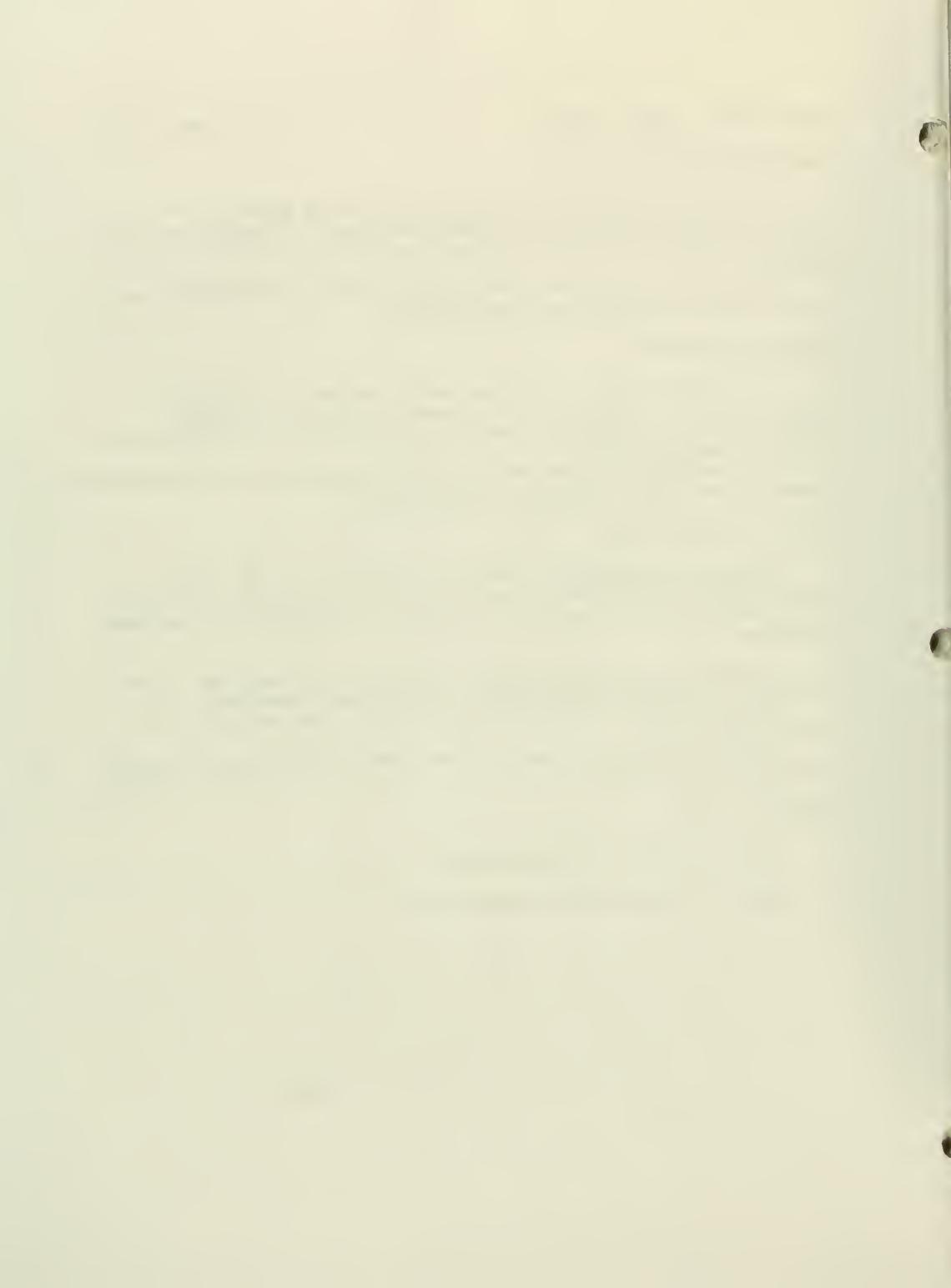
Requires ability to follow oral and written instructions and to work independently.

Requires skill in the operation and routine maintenance of various platen printing presses.

PROMOTIVE LINES:

To: No Normal Line of Promotion

From: Original entrance examination.



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: PATTERNMAKER

CODE: 7358

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled work in connection with the fabrication, alteration, maintenance and repair of a variety of patterns for the manufacture of castings; and performs related duties as required.

Nature of work requires: continuous close attention and working within very close tolerances; some physical effort and considerable manual dexterity; exposure to working conditions where minor and major injuries may occur.

EXAMPLES OF DUTIES:

1. Designs, lays out and constructs simple or intricate patterns from blueprints, sketches or models; calculates shrinkage of metal and alloys.
2. Repairs broken or damaged pattern equipment and corrects same to compensate for defects in castings.
3. Maintains pattern tools and pattern shop machinery.
4. Constructs wood and metal pattern equipment for high pressure pipe line valves and fittings and special pattern equipment, as needed.
5. Constructs, repairs and alters wood and metal patterns and core boxes.
6. Makes filing cabinets and office equipment.
7. Constructs and repairs departmental office furniture, fire department ladders, tools, and other equipment according to specifications.
8. Maintains pattern tools and pattern shop equipment.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman patternmaker; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires thorough knowledge of: the methods, practices, tools, equipment and materials of the trade, and some knowledge of the metal trade associated with patternmaking.

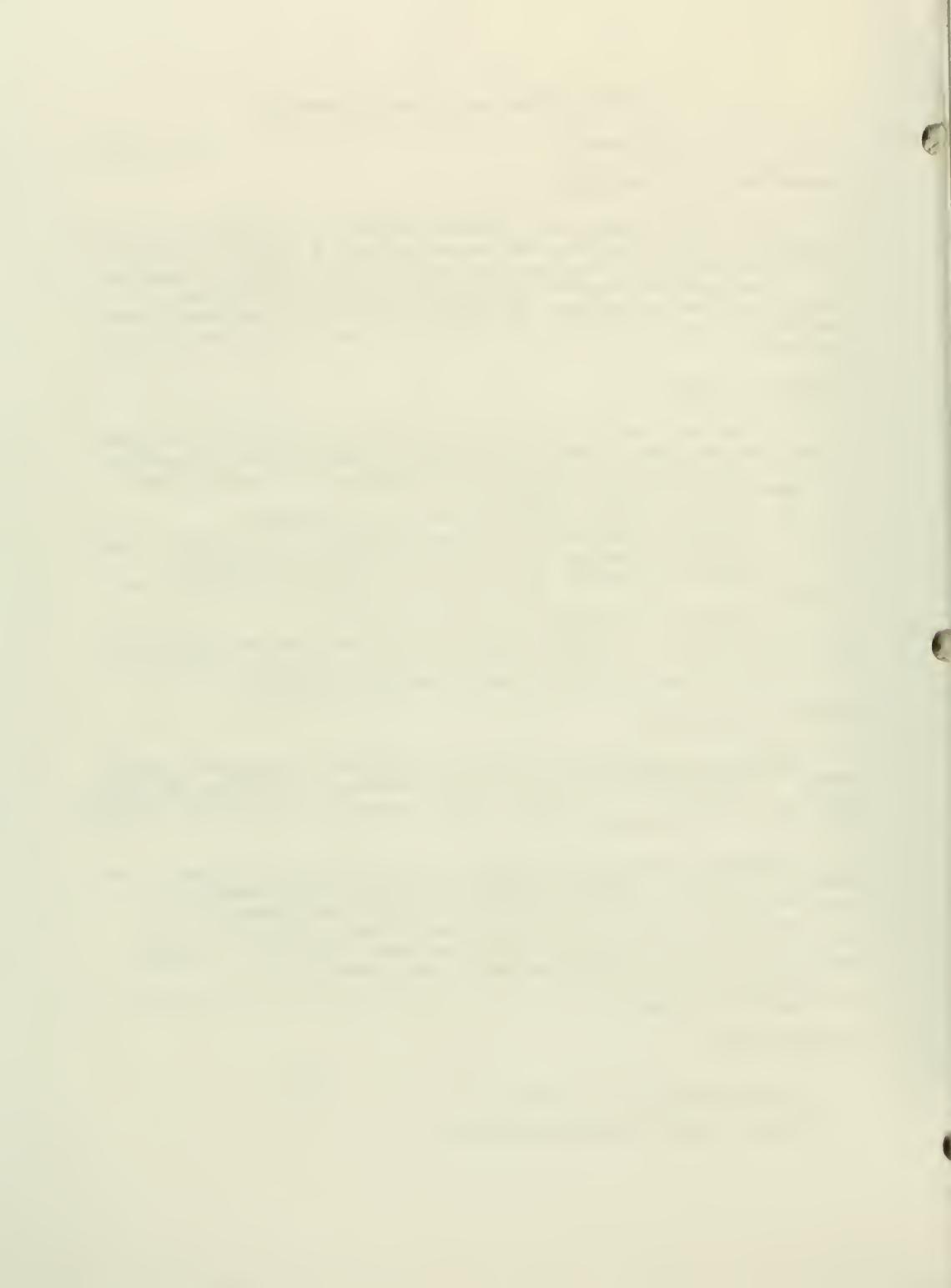
Requires ability to: design, lay out and make simple or intricate patterns; calculate shrinkages for various types of metals and alloys; work from drawings, sketches, samples or oral instructions.

Requires considerable skill in the use of the tools, materials and equipment of the trade.

PROMOTIVE LINES:

To: No normal line of promotion

From: Original entrance examination



CLASS TITLE: PIANO TUNER

CODE: 7359

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs highly skilled work in connection with the tuning, repair and overhaul of pianos and autoharps; and performs related duties as required.

Requires responsibility for the preparation of routine time, materials and work performed reports. Nature of work requires considerable manual dexterity.

EXAMPLES OF DUTIES:

1. Tunes a variety of pianos and autoharps utilizing standard tuning methods.
2. Makes major and minor repairs to pianos, including repairing and replacing strings, hammers, stops, sounding boards and related internal parts; regulates pedals; tightens key action, levels keys and regulates tone.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least four years of journeyman level experience in the tuning, repair and overhaul of pianos; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires comprehensive knowledge of the principles, practices, tools and materials utilized in piano tuning and rebuilding.

Requires considerable ability to: determine tonal quality and accurate pitch; analyze faults and take appropriate corrective action.

Requires considerable skill in general piano repair and tuning and in the care and use of pertinent tools, equipment and facilities.

PROMOTIVE LINES:

To: No normal line or promotion

From: Original entrance examination

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DEPARTMENT OF HUMAN RESOURCES**JOB CODE TITLE: PIPE WELDER****JOB CODE: 7360**
Business Unit: COMMN**Definition:**

Under general supervision, operates acetylene and electric arc welding equipment in connection with the installation, repairing and maintenance of water distribution pipelines and related facilities.

Distinguishing Features:

Class 7360 Pipe Welder is a journey-level class in the Clerical, Maintenance and Technical (CMT) concept. Incumbents perform the full range of duties of pipe welders with only occasional instruction or assistance. This class is distinguished from 7390 Welder in that this class performs welding on pressure vessels (high pressure pipelines).

Supervision Exercised: None**Examples of Important & Essential Duties:**

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this job code and are not intended to be inclusive.

1. Operates all types of welding and metal working machinery necessary to the repair and maintenance of all pipelines, pumping stations and water treatment equipment.
2. Lays out pipe and constructs pipe specials, such as offsets, bends, sleeves, reducers, tanks and meter batteries.
3. Performs repairs, by electric arc welding, acetylene welding, brazing or silver soldering, all types of valves, tools, leak pumps, construction and storage equipment.
4. Performs cuts, fits and welds pipes; repairs leaks and makes templates.
5. Manufactures emergency repair items, such as leak bands, tapping tees, gate rings and common vault cover.
6. Makes various types of mechanical pipe connections, such as threaded, flanged, flared and compression.
7. Constructs and maintains special truck bodies (PUC only).
8. Performs related duties as required.

Job Related & Essential Qualifications:

Knowledge of: composition and properties of various metals and methods of identifying and welding them; various types of welding rods required by the type and weights of metals being welded; knowledge of welding symbols; knowledge of proper safety procedures and safe handling of welding equipment.

Ability to: operate welding equipment; set up and adjust oxyacetylene, electric arc, MIT, TIG, and other apparatus; layout necessary welding methods and equipment for pipeline repair of fabrication; measure, calculate, layout, fabricate and install various pipefittings.

JOB CODE TITLE: PIPE WELDER

JOB CODE: 7360
Business Unit: COMMN

Experience and Training Guidelines:

1. Five(5) years experience as a welder using oxyacetylene and electric arc welding methods which must include one(1) year as a welder on high pressure pipelines.
2. Possession of a Class C Driver's License.

Substitution:

One(1) year of training from a recognized trade school or union welding program in electric arc and oxyacetylene welding may be substituted for one(1) year of experience.

Special Requirements:

Work requires physical effort and manual dexterity in the use of fingers, limbs and body; requires continuous exposure to working conditions where injuries may be encountered; requires ability to work in inclement weather; perform emergency repairs nights, weekends, and holidays; must be able to work in damp enclosed places, heights (up to 220 feet) or confined spaces; climb in and out of ditches, and lift and carry 50 pounds.

Effective Date: 1/12/61

Amended Date: 12/15/00

Reason for Amendment:

To accurately reflect the current tasks, knowledge, abilities and skills defined in the most recent job analysis conducted for this class.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: PLASTERER

CODE: 7361

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled plastering work in connection with the maintenance and repair of building and other facilities; and performs related duties as required.

Requires responsibility for: preparing ordinary time, materials and work accomplished reports and cost estimates. Nature of work requires considerable physical effort and manual dexterity and exposure to working conditions where moderately serious injuries may occur.

EXAMPLES OF DUTIES:

1. Repairs and patches plaster interior and exterior surfaces.
2. Mixes plaster, mortar and other materials.
3. Casts bench legs, pull boxes and other plaster forms.
4. Stucco washes various surfaces as required.
5. Installs lath in connection with plastering work.
6. Estimates materials needed and labor costs for various jobs.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman plasterer; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of the common practices, methods, tools and materials of the plastering trade.

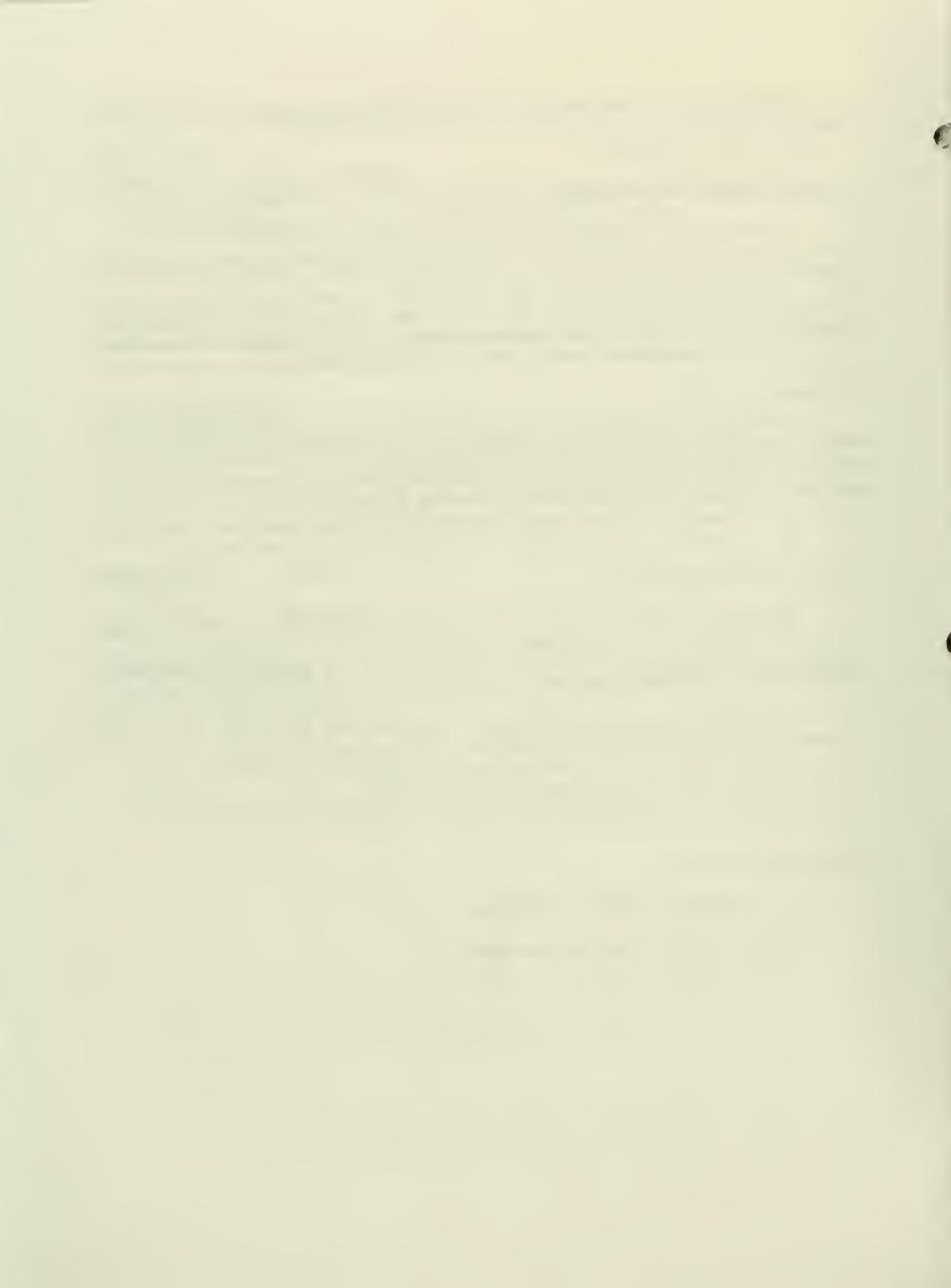
Requires ability to: follow oral and written instructions; estimate materials and labor costs; work well with others.

Requires considerable skill in the use of the tools and materials of the trade.

PROMOTIVE LINES:

To: No normal lines of promotion

From: Original entrance examination



**CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES**

JOB CODE TITLE: COMMUNICATIONS SYSTEMS TECHNICIAN

**JOB CODE: 7362
Business Unit: COMMN**

Definition:

Under general supervision, performs a wide variety of skilled technical maintenance, testing and repair work on complex wireless and networked communications equipment to support a wide variety of emergency communications systems; analyzes malfunctions and equipment failures of various network operating systems such as servers, gateways and routers used in radio communications systems.

Distinguishing Features:

This is the journey level class in the series. Incumbents are expected to resolve malfunctions and equipment failures related to operating systems, network management software and equipment parameter configuration software of a wide variety of telecommunications equipment. Job code 7362 is distinguished from job code 7368 Senior Radio Technician in that the latter is responsible for supervising positions in job code 7362.

Supervision Exercised:

No supervision exercised.

Examples of Important and Essential Duties:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this job code and are not intended to be an inclusive list.

1. Troubleshoots and repairs a wide variety of computer aided telecommunications devices such as radio dispatch consoles, records management consoles, SCADA systems, telemetry and GPS systems by using diagnostic software for localizing equipment and system problems, specialized testing equipment such as DS1, DS3, and SONET impairment test sets, digital oscilloscopes, Radio Service Monitors, digital multimeters, frequency counters and power meters.
2. Configures equipment and system operating parameters through use of mobile radio system software, LAN/WAN service software, and modem service software.
3. Documents system and equipment repairs, modifications and changes as part of ongoing service and maintenance system operating procedures.
4. Troubleshoots and repairs conventional and trunked central and remote radio, microwave and control terminals and related devices such as antennas by use of specialized soldering equipment used in surface mounted devices and physical repair of failed equipment retrieved from field installation.
5. Consults with client department representatives, service providers and vendors, other radio staff, cable splicers or other technical staff as needed in resolving communication system problems.
6. Performs related duties as assigned.

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Job Related and Essential Qualifications:

Knowledge of: two-way radio transmission, microwave digital modulation theory and techniques, antenna systems, telecommunication theory, protocols, and interface between radio systems and interconnecting networks; system approach to service and maintenance of communication systems; radio telemetry and global positioning system, as applied to vehicle location system; high speed data transmission theory, troubleshooting, and repair of DS1, DS3, and SONET networks.

Ability to: use telecommunication test set, such as Radio Service Monitor, TIMS, spectrum analyzer, oscilloscope, logic analyzer; work with specialized repair tools such as soldering irons, surface mount soldering and desoldering stations, and circuit magnifiers; read equipment and system schematic diagrams; use computer workstation and laptop PCs used for testing, diagnostics, and programming telecommunications equipment.

Experience and Training Guidelines:

Experience: Three years of journey level electronics technician experience, which must have included the installation, repair, and maintenance of a broad range of electronic communications systems and equipment.

Certificate: Possession of a Federal Communications Commission General-Class Radio-Telephone Operator's License OR an APCO Certificate of Competency (Associated Public Safety Communications Officers) OR a NABER Certificate (National Association of Business and Educational Radio)

Substitution: Two additional years of experience; OR two years of coursework in electronic communications technology from an accredited college or university (one year experience = 30 semester/45 quarter units); OR 1200 hours of professional certificated technical training in that field; OR any combination of the above may substitute for licensing/certificate requirements.

License: Possession of a valid driver's license

Essential duties require the following physical skills and work environment: exposure to disagreeable weather conditions, working in confined spaces, lifting of heavy objects and carrying them or moving them for moderate distances.

Effective Date: 8/8/00

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: POWERHOUSE ELECTRICIAN

CODE: 7363

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled electrical work in connection with the maintenance, testing, repair and alteration of electrical power generating plant and sub-station machinery and equipment; may exercise work direction over craftsmen helpers involved in such work; and performs related duties as required.

Requires responsibility for: explaining and carrying out existing methods and procedures relative to electrical maintenance and repair work in power generating plants and sub-stations; making routine contacts with other departmental personnel in connection with electrical maintenance, testing and repair of powerhouse and sub-stations; preparing routine reports of work accomplished and time expended on maintenance and repair activities. Nature of work involves: some physical effort and dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where minor injuries may be encountered.

EXAMPLES OF DUTIES:

1. Makes periodic inspections and, as necessary, maintains and makes repairs to alternating and direct current control equipment, station service equipment, emergency power supply equipment, motors and controls, protective relays, instrument transformers and meters.
2. Makes periodic inspections, and, as necessary, maintains and makes minor repairs to main generating units and associated equipment, including exciters, regulators, isolated phase bus, transformers, surge protective devices, fire protection equipment, 115KV and 230KV oil circuit breakers, disconnect and grounding switches, outdoor bus structures and auto transformers.
3. Assists in the inspection, maintenance and repair of electronic and communications equipment.
4. Installs, maintains and repairs various miscellaneous electrical equipment in powerhouse, sub-stations and switchyards.
5. May, when dispatched to unattended stations, be required to operate a variety of generating equipment.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft, and four years of experience as a journeyman electrician, two years of which must have been in the maintenance and repair of powerhouse or sub-station electrical equipment; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: various types of electrical generating and transforming equipment and installations; tools, materials and equipment necessary for the maintenance, operation, testing and repair of such installations; existing safety codes, ordinances and regulations.

CLASS TITLE: POWERHOUSE ELECTRICIAN

CODE: 7363

Requires ability to: work from drawings, sketches and blueprints; maintain routine records and reports of work accomplished.

Requires considerable skill in the use and handling of electrical equipment and tools of the electrical trade.

PROMOTIVE LINES:

To: Maintenance Electrician Foreman
POWERHOUSE ELECTRICIAN FOREMAN

From: Electrician
Original entrance examination

CLASS TITLE: POWER HOUSE OPERATOR

CODE: 7364

CHARACTERISTICS OF THE CLASS:

Under general supervision, during an assigned watch, operates an electric power generating or sub-station unit; performs minor maintenance and repair work on generators, transformers, motors and related equipment; supervises subordinate personnel assigned to the watch; and performs related duties as required.

Requires responsibility for: explaining and carrying out existing methods and procedures relative to power generation and distribution activities; making routine contacts with other departmental personnel in connection with plant operations; preparing and maintaining ordinary plant operating records. Nature of work requires: some physical effort and dexterity in the use of the fingers, limbs and body; exposure to physical and working conditions where moderately serious injuries may occur; exposure to somewhat disagreeable working conditions due to excessive noise.

EXAMPLES OF DUTIES:

1. Starts power house and sub-station equipment; makes all required checks on transformers and circuit breakers, opening and closing them according to time schedules; checks the readings and operation of ammeters, volt meters, watt hour meters and protective relays.
2. Shuts down sub-station at scheduled time by hooking up regulators and opening switches.
3. Takes periodic reading of circuit current on all meters; records readings on daily load sheets and log book; makes tests of all circuits and equipment during non-operating hours; tests alarm devices.
4. Performs and supervises the routine maintenance and repair of station equipment.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least three years of experience in the operation and maintenance of electrical power generating plants and equipment; or an equivalent combination of training and experience.

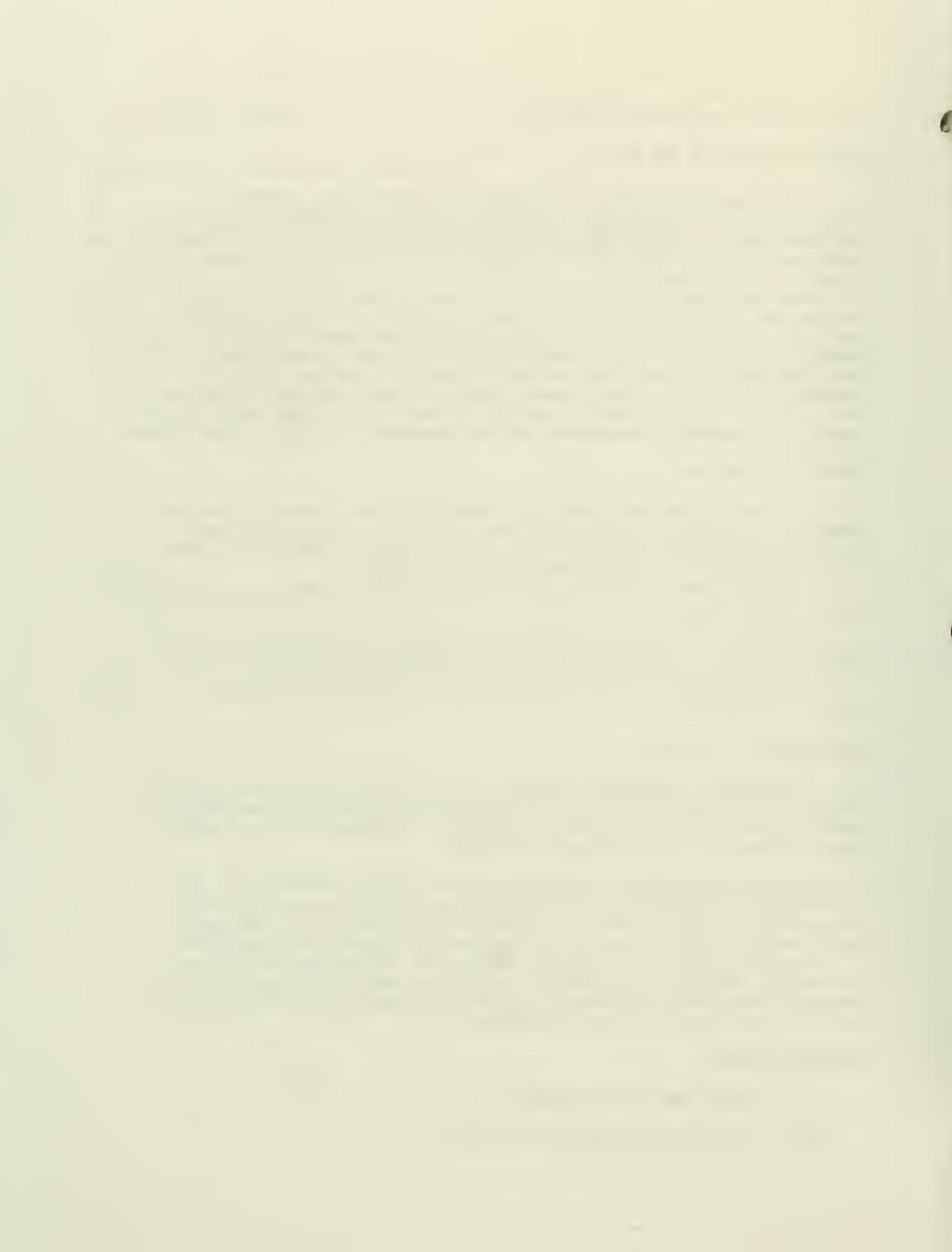
Knowledge, Abilities and Skills: Requires good knowledge of: the fundamentals of electricity, particularly as applied to power generation; the operating characteristics and servicing requirements of such equipment; safety rules and regulations applicable to power plant operation.

Requires ability to: detect, analyze and take appropriate action in cases of emergency or malfunctions in plant operations; make minor and emergency adjustments and repairs to plant machinery and equipment; maintain routine records of plant operations.

PROMOTIVE LINES:

To: Senior Power House Operator

From: Assistant Power House Operator



CLASS TITLE: SENIOR POWER HOUSE OPERATOR

CODE: 7365

CHARACTERISTICS OF THE CLASS:

Under direction, supervises the work of operators in power houses or sub-stations in the generation or distribution of electrical power; requisitions and checks delivery of supplies; maintains records and makes required reports; and performs related duties as required.

Requires responsibility for: interpreting, enforcing and carrying out existing methods and procedures relative to the operation and maintenance of power generating plants and equipment; making routine contacts with other departmental employees in connection with plant operation and maintenance matters; preparing and reviewing plant operating reports and records. Nature of work requires occasional exposure to physical and working conditions where moderately serious injuries may occur.

EXAMPLES OF DUTIES:

1. Supervises and inspects the work of a shift of operators and other power house, sub-station and/or reservoir personnel in the operation, maintenance and repair of power house and sub-station machinery, equipment and facilities.

2. Supervises and aids in the operation of switching, starting and stopping of generators, water wheels, transformers, pumps, compressors, valves, motors and related equipment.

3. Acts as relief operator in power houses and sub-stations when regular operators are absent.

4. Performs more difficult tests, repairs and adjustments on machines and related equipment.

5. Maintains complete records of station and system operations in electrical log book; keeps radio log and records of electrical equipment maintenance; computes energy distribution data and water flow and prepares daily and monthly reports.

6. May handle communications via radio, telephone and public address systems for emergency signaling and coordinating action with other activities in switching and tie-in operations.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least five years of responsible experience in the operation and maintenance of power generating distribution plants, machinery and equipment, including at least one year of supervisory experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: the operation and maintenance requirements of electrical generating or distribution equipment, and the techniques, methods and tools necessary to the care and maintenance of such equipment; power transmissions and distribution systems and related appurtenances.

Requires ability to: plan, assign and supervise the activities of subordinate personnel; detect, analyze and take appropriate action in cases of malfunctioning equipment or emergencies; prepare and review

CLASS TITLE: SENIOR POWER HOUSE OPERATOR
(continued)

CODE: 7365

plant operating records and reports.

PROMOTIVE LINES:

To: Power House Superintendent
Power Plant Foreman

From: Power House Operator

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: ELECTRONIC CONTROL SYSTEMS TECHNICIAN

CODE: 7366

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs a variety of skilled duties in connection with the testing, monitoring, maintenance and repair of the computers, peripheral equipment and communications network supporting a variety of data acquisition and closed loop control systems; performs periodic testing of all equipment and associated subsystems; analyzes malfunctions and equipment failures, expedites repair and/or corrective action to restore system operations with minimum delay, and performs related duties as required.

DISTINGUISHING FEATURES:

The Electronic Control Systems Technician, under general supervision of the Telecommunications Supervisor or a system supervisor and during an assigned shift, is responsible for analyzing, testing, repairing and maintaining complex electronic, digital and analogue circuitry and equipment at a wide range of data acquisition or control facility sites. The incumbent of this position may direct the activities of less technical personnel on a shift as required to promote efficient operations. Position in this class may require occasional exposure to hazardous or unpleasant working conditions.

EXAMPLES OF DUTIES:

1. Monitors the operational status of computers and peripheral electronic data acquisition and closed loop control equipment as assigned, including, but not limited to, system control consoles, normal and emergency power supplies, audio dispatch consoles and remote sensing devices and gages.

2. Analyzes malfunctions and performs preventative and corrective maintenance on a system and peripheral equipment, including, but not limited to, digital computer hardware, central processors, disk, paper and magnetic tape drives, card readers, line printers, consoles, electronic status board, fire alarm box switchboard, and control devices installed on fully or partially modulated gates, movable or pressurized weirs, a variety of pumping devices and sewage treatment facilities, as assigned.

3. Tests transmission circuits with electronic line measuring equipment to insure that circuits test clear of ground, shorts, foreign voltage, noise, cross talk and distortion, and to determine if proper frequencies are being transmitted for voice announce, FSK teletype and touch tone equipment in Fire Stations and auxiliary agencies of the Fire Department and to determine if proper analog-and digital signals are being transmitted or received between various water pollution system sites and unit control centers.

4. Recommends, designs, modifies and makes system hardware improvements to assure continuance of data quality and system control operation.

5. Installs, tests, repairs and maintains electronic telecommunication equipment in Fire Stations, including voice announce, intercom and paging system, FSK teletype printer, touch tone equipment, PA amplifier, normal and emergency power supply.

6. Installs, tests and repairs equipment or supervises such work for data acquisition or control equipment at a variety of sites, access to which may be difficult or hazardous.

7. Operates test console; conducts tests with field personnel, including subordinate technicians, line crews, cable splicing crews and fire alarm maintenance personnel.

CLASS TITLE: ELECTRONIC CONTROL SYSTEMS TECHNICIAN

CODE: 7132

EXAMPLES OF DUTIES: (continued)

8. Monitors, maintains and calibrates additional specialized equipment and performs additional supportive duties as determined by department assignment, may respond to or route telephone inquiries, dispatch maintenance personnel, schedule maintenance work, operate a mobile maintenance unit, conduct tests of emergency and civil defense systems and prepare operating budgets and maintain equipment inventory.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school supplemented by technical training in digital and analogue communications electronics at the junior college level, or a recognized trade, military or company-operated training school. Requires four years of full-time, first-class paid experience installing, maintaining and repairing electronic communication systems, two years of which must have been connected with the installation and inter-facing or operations maintenance and repair of digital data computer based real time monitoring or control systems or audio communications systems.

Knowledge, Abilities and Skills: Requires comprehensive knowledge of the operating principles of computers, digital data and audio communication systems, pneumatic and electrical measuring instrumentation including solid state devices and pulse tone, digital and logic circuitry.

Requires ability to understand and correlate entire system networks and to diagnose, repair and maintain complex digital and analogue circuitry.

Requires considerable skill: In the use of test instruments and equipment; application of theory, procedures and techniques to the installation, maintenance and repair of telecommunications and closed loop control systems; sufficient strength to perform medium to heavy manual work with unimpaired hand and finger dexterity; good hearing and eyesight with color discernment sufficient to discern reds, browns, greens and yellows. Requires ability to communicate effectively in written and oral modes with technical, professional and lay people.

License: A valid State Motor Vehicle Operator's license.

PROMOTIVE LINES:

TO: 7132 Telecommunications and Control Systems Supervisor

FROM: Original entrance examination

ADOPTED: 3-1-76

AMENDED AND RETITLED: 11-7-77

CLASS TITLE: RADIO TECHNICIAN

CODE: 7367

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs technical installation, maintenance and repair work on mobile and fixed radio receiving and transmitting equipment; and performs related duties as required.

Requires responsibility for: making routine contacts with other departmental employees and outside agencies relative to radio and communication equipment installation and repair work; maintaining routine records on equipment use and maintenance. Nature of work requires some physical effort and dexterity in use of the fingers in the installation and maintenance of radio and communications equipment.

EXAMPLES OF DUTIES:

1. Installs, adjusts, repairs and maintains mobile radio transmitters and receivers, and two-way radio equipment.
2. Analyzes malfunctioning of receiving and transmitting equipment in fixed base stations and makes necessary adjustments to insure proper operation; installs and maintains such equipment.
3. Adjusts transmitting equipment to comply with federal communications rules and regulations; installs and maintains inter-office communication equipment, audio frequency amplifiers, recorders, control circuits and lines.
4. Tests a wide variety of radio and communications equipment; maintains records of all repairs and installations made.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of two-way base and mobile radio operations, installation, maintenance and repair experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: the rules and regulations affecting communications equipment as prescribed by the federal communications commission; the techniques, theory and practices used in the operation, installation, maintenance and repair of modern communications systems.

Requires considerable ability to: diagnose radio equipment malfunctions and failures; read and interpret schematic radio diagrams.

Requires considerable skill in the: use of testing instruments and tools used in radio repair work; application of the theory, procedures and techniques of radio installation, maintenance and repair to practical problems.

License: Requires possession of a valid second class radio telephone operator's license issued by the federal communications commission; a valid state motor vehicle operator's license.

CLASS TITLE: RADIO TECHNICIAN (continued)

CODE: 7367

PROMOTIVE LINES:

To: Senior Radio Technician

From: Original entrance examination

Adopted 1/12/61

CLASS TITLE: SENIOR RADIO TECHNICIAN

CODE: 7368

CHARACTERISTICS OF THE CLASS:

Under direction, performs technical installation, maintenance and repair work on mobile and fixed two-way radio equipment; supervises the activities of subordinate personnel engaged in such work; and performs related duties as required.

Requires responsibility for: planning and carrying out existing communications maintenance and repair methods and procedures; making routine contacts with other departmental personnel and outside agencies in connection with radio and communications maintenance and repair activities; preparing and reviewing ordinary records and reports on communication equipment maintenance; nature of work requires some physical effort and manual dexterity in the installation, maintenance and repair of communications equipment.

EXAMPLES OF DUTIES:

1. Lays out and assigns communications and radio maintenance and repair jobs for subordinate personnel; checks and reviews work in progress or completed assignments to assure compliance with instructions or procedures.

2. Consults with representatives of other city departments in connection with complaints on the operation of radio and communication equipment.

3. Analyzes remote control equipment circuits, and similar installations for malfunctions when communication systems difficulties occur; notifies appropriate authorities to make necessary repairs.

4. Assures that federal communication commission regulations and requirements are adhered to in the installation, maintenance and repair of radio and communication equipment.

5. Analyzes and corrects most complex maintenance problems of radio installations and repairs and supervises the preparation of maintenance and installation reports.

6. Assures that supplies and materials are available for maintenance and repair work.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least three years of progressively responsible experience in the operation, installation, maintenance and repair of short-wave radio equipment and communication installations, including some supervisory experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: the rules and regulations affecting communications equipment as prescribed by the federal communications commission; the techniques, theories and procedures used in the operation, installation, maintenance and repair of modern communications systems.

CLASS TITLE: SENIOR RADIO TECHNICIAN (continued)

CODE: 7368

Requires considerable ability to: analyze malfunctions and failures of communications equipment and take proper corrective action; read and interpret schematic diagrams and layouts for radio and communication equipment.

Requires considerable skill in: the use of testing instruments and tools of radio repair; the application of radio communication system installation, maintenance and repair theory and practice to practical maintenance and repair problems.

License: Requires possession of a valid second-class radio telephone operator's license issued by the federal communication commission.

PROMOTIVE LINES:

To: No Normal Line of Promotion

From: Radio Technician

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: APPRENTICE SHEET METAL WORKER

CODE: 7369

CHARACTERISTICS OF CLASS:

Under immediate supervision, performs apprentice sheet metal work as part of a recognized program of the Sheet Metal Workers International Association of the United States and Canada as established and recognized by the State of California and the Joint Apprenticeship Committee of the Local Sheet Metal Worker's Industry; all work to be performed and related supplemental instruction are enumerated in the Apprenticeship Standards formulated by said committee and summarized in this specification; assists the sheet metal worker in cutting, forming, fabricating, repairing and installing light gauge sheet metal and related heavy metal shapes; performs related duties as required.

DISTINGUISHING FEATURES:

The Apprentice Sheet Metal Worker works under the immediate supervision of a qualified journey-level worker during the trade required 4 1/2 year apprenticeship, learning to fabricate and install sheet metal items through diversified experience in on-the-job training and related instruction.

EXAMPLES OF DUTIES:

Class specifications shall be descriptive of the class and shall not be considered a restriction on the assignment of duties not specifically listed. (Civil Service Rule 7)

1. Assists in determining from work orders and blueprints work to be completed; obtains metal from stock or on requisition and measures and marks it for cutting and forming.
2. Assists in cutting sheet metal using hand and power tools; bends and forms sheet metal pieces and fastens parts together using solder, ARC or oxygen acetylene or spot welding equipment.
3. Assists in fabricating air conditioning and ventilating ducts, sinks, counter tops and trays.
4. Assists in fabricating outside sheet metal parts such as skylights, gutter downspouts, louvers and machine guards.
5. Assists in erecting scaffolding for work to be done in high locations.

QUALIFICATIONS:

The examination announcement shall provide the qualifications ...and other particulars...Applicants must be guided solely by the announcement of the examination for which they apply. (Civil Service Rule 9)

CLASS TITLE: APPRENTICE SHEET METAL WORKER

CODE: 7369

Knowledge, abilities and skills: Ability to: learn the methods, practices, materials and tools used in the fabrication, repair and installation of a wide variety of items made from sheet metal; follow oral and written instructions.

NOTE: Requires selection by the Joint Apprenticeship Committee of the Local Sheet Metal Worker's Industry.

LICENSE: Requires possession of a valid California Driver's License

ADOPTED: 12-2-85

#0057b

CLASS TITLE: RIGGER

CODE: 7370

CHARACTERISTICS OF THE CLASS:

Under supervision, performs skilled work in setting up rigging for the lifting, moving and placing of heavy objects; and performs related duties as required.

Nature of work requires: considerable physical effort and dexterity; exposure to physical and working conditions where moderately serious injuries may occur despite provisions of safety measures.

EXAMPLES OF DUTIES:

1. Rigs for heavy lifts such as lumber, cement blocks, machinery and equipment.
2. Pulls trees, roots and fences.
3. Slings, rigs and places electrical generators, chlorine tanks and electric motors.
4. Replaces flag poles and signs.
5. Rigs for handling live and dead animals for the zoo.
6. Moves booths, engineer shacks and small houses.
7. Rigs trucks and heavy equipment for towing.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by at least two years of responsible rigging experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires a good knowledge of the principles of leverage through the use of cables, ropes, pulleys and slings in moving heavy equipment and material; strength and safety factors involving the equipment operated; methods, practices and signals used as applied to rigging; safety precautions necessary in moving and lifting all types of objects.

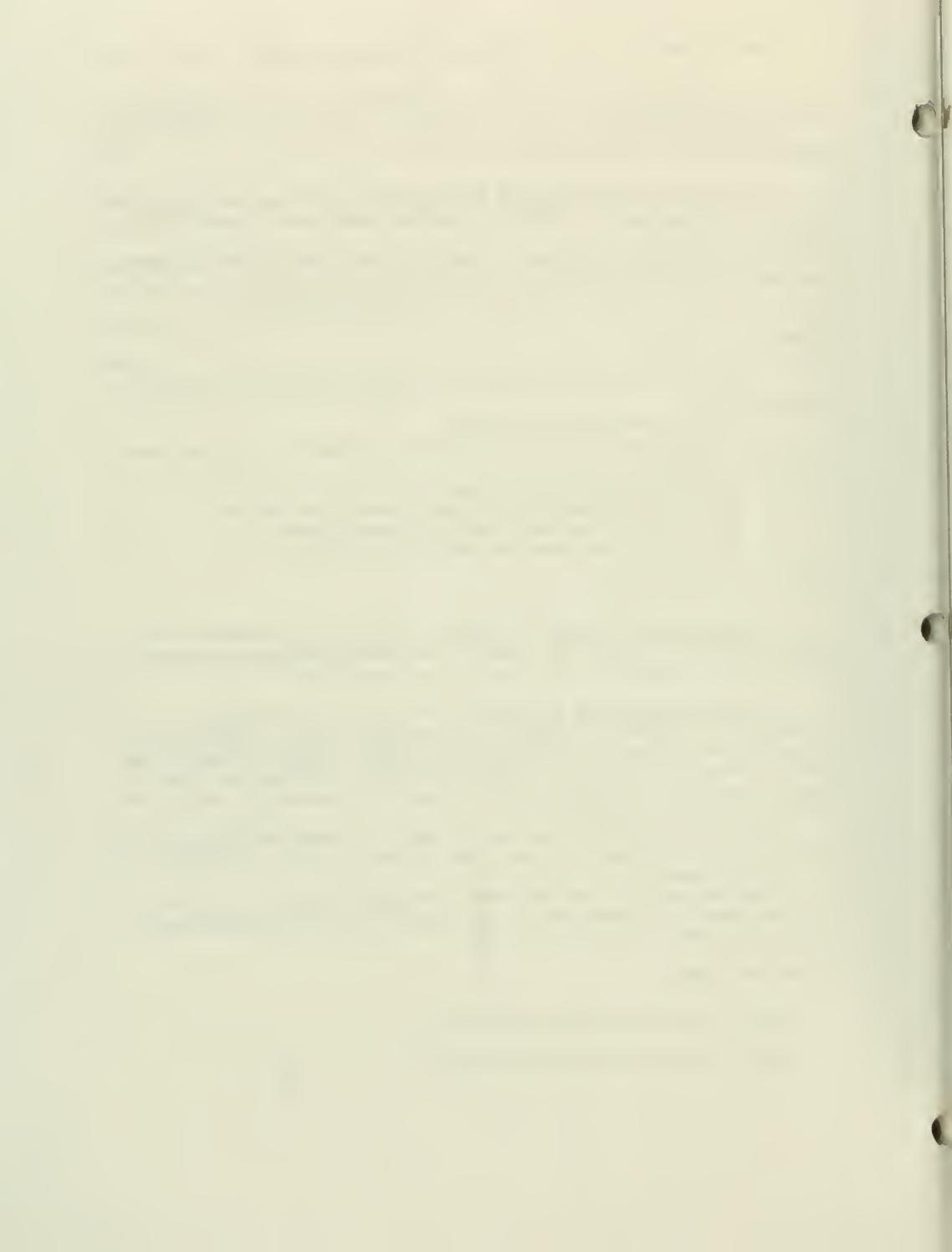
Requires ability to: use various types of knots and linkages; detect flaws and weaknesses in ropes and cables; estimate weights of material and equipment.

Requires skill in the fabrication and adjustment of a variety of rigs necessary to lifting and towing operations and the operations of related equipment.

PROMOTIVE LINES:

To: No normal lines of promotion.

From: Original entrance examination.



CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

CLASS TITLE: ELECTRICAL TRANSIT SYSTEM MECHANIC

CODE: 7371

DEFINITION:

This specification defines and describes the full range of tasks included within the levels of the class of Electrical Transit System Mechanic. Assignments within this class vary in degree of complexity, responsibility and amount of supervision received.

Under general supervision, performs skilled mechanical and electrical work in connection with the maintenance and repair of electrically-powered transit equipment, makes emergency repairs to disabled equipment on the road, and performs related duties as required.

DISTINGUISHING FEATURES:

This class encompasses a range of levels from entrance through the fully experienced journey level. Incumbents enter at the trainee/helper level, receive training, and gradually perform more difficult and responsible work. This class is distinguished from the automotive series by its responsibility for maintenance of electrically-powered vehicles. It is distinguished from the 7380 Electrical Transit Mechanic Assistant Supervisor and 7253 Electrical Transit Mechanic Supervisor I which are supervisory classes.

SUPERVISION EXERCISED: None

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this class(es) and are not intended to be an inclusive list.

1. Inspects, services, adjusts, removes and replaces, repairs and/or installs electrical mechanical vehicle components (running repair), including pneumatic, hydraulic, mechanical, and electrical equipment.
2. Makes emergency repairs to vehicles in service (road calls).
3. Removes, replaces and repairs brakes, motors, gears, compressors, suspensions and other large components (heavy duty).
4. Completes written or computer-based work reports and enters data into computers.
5. Reports needs for maintenance or repair identified during inspection.
6. Troubleshoots defective electrical and mechanical components.
7. Moves transit vehicles within the yard and on the street as needed.

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8. is responsible for vehicle flow for washing (tower/meet and greet), movement of transit vehicles in the yard; signing out vehicles, obtaining maintenance or repair information from operators.
9. Performs related duties and responsibilities as assigned.

JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: methods, materials, tools and equipment used in safely servicing and maintaining electrically-powered vehicles; maintenance requirements of such equipment; basic electrical, hydraulic and pneumatic theory; shop safety practices; and hazardous materials handling.

Ability to: safely operate testing devices, tools and other repair equipment; analyze mechanical, pneumatic, hydraulic, and electrical problems and determine appropriate repair requirements; perform basic shop mathematical calculations; enter work reports on computer; assemble custom components for unique and/or antique transit vehicles; and read electrical schematic and wiring diagrams.

Skill in: establishing and maintaining cooperative working relationships; learning mechanical, and electrical concepts and repair procedures; dealing courteously with members of the public; following oral and written instructions; and operating transit vehicles and other servicing equipment.

Experience and training guidelines:

Any equivalent combination of experience and training that would provide the required knowledge, skills and abilities would be qualifying. A typical way to obtain the knowledge, skills and abilities would be:

Experience: Two years of experience in maintenance and repair of electrical and mechanical systems in automobiles, trucks, buses, ships, airplanes, or similar vehicles.

Training: Completion of a vocational training program in electrical and mechanical maintenance.

License: Possession of a valid California driver's license.

Special requirements: Compliance with job-related and legally-mandated safety requirements.

Essential duties require the following physical skills and work environment: physical effort and dexterity in the use of fingers, limbs and body, with continuous exposure to physical and working conditions where minor injuries may be incurred.

Effective Date: 7/2/99

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DEPARTMENT OF HUMAN RESOURCES****7372 STATIONARY ENGINEER, SEWAGE PLANT****Definition:**

Under general supervision, during an assigned shift, is responsible for operating and maintaining a wide variety of complex machinery and equipment in a sewage disposal plant or pumping station, following established plant operations, methods and procedures; maintaining and preparing routine plant operations records and reports; and performs related duties as assigned.

Distinguishing Features:

Job code 7372 is a journey-level position in the Stationary Engineer series at the sewage plant, performing duties following established rules and/or procedures. This job code is distinguished from job code 7373 Senior Stationary Engineer in that the latter is required to supervise a work crew during an assigned shift, and personally participates in major or minor repairs of plant machinery and equipment.

Supervision Exercised:

May serve as acting supervisor during an assigned shift, in an assigned area of a sewage treatment plant.

Examples of Important and Essential Duties:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this job code and are not intended to be an inclusive list.

1. Makes regular visual inspection and/or manual tests of all plant machinery and equipment in an assigned area or pumping station for proper operation.
2. Adjusts valves and controls as required to maintain proper flow and treatment of sewage.
3. Takes periodic readings of gauges and meters, and charts, and records results in plant operating log.
4. Performs a variety of manual tasks requiring the handling of equipment exposed to raw sewage; collects raw sewage samples on prescribed schedule at specific locations; may make simple chemical analysis of samples collected.
5. Assists in making major and minor repairs to all treatment plant and pumping station machinery and equipment, including pumps, bar racks, grit collectors, conveyors and washers, chlorinators, evaporators and storage tanks, sludge collectors, drive units, deodorizing equipment and a wide variety of metering and recording devices; lubricates, greases and cleans machinery and equipment and maintains work area in a clean and orderly fashion; services contacts on electric motor line starters, auxiliary relays and automatic switches.

Job Related and Essential Qualifications:**Knowledge of:**

The operation, maintenance and repair of switches, circuits breakers, motors, pumps and a variety of mechanical and electrical devices.

Ability to:

Analyze, maintain and repair a variety of mechanical and electrical equipment; make repairs to plant machinery and equipment, and as necessary, maintain simple plant operating records.

Skills:

Requires skill in the use of hand tools as needed in the maintenance and repair of equipment.

Positions located at the San Francisco Airport require technical knowledge and skill to conduct bacteriological and chemical tests of various stages of the sewage treatment processes.

Experience and Training Guidelines:

1. Four years of verifiable journey level Stationary Engineer, Plant Operator and/or Plant Mechanic experience in the operation, maintenance, and repair of a variety of mechanical and electrical pumping, heating, air-conditioning, ventilating, and related plant machinery of wastewater treatment plant; government establishment; hospital; industrial, production, or commercial building; **OR**
2. Completion of a recognized four-year stationary engineer Apprenticeship Program; **OR**
3. Graduation from a recognized four-year Maritime Academy with a degree in Engineering or technology; **OR**
4. Possession of at least a 3rd Assistant Marine Engineer's License of any unrestricted horsepower (experience as an Oiler or Firetender will not be accepted as qualifying);
AND
5. Possession of a valid driver's license

License/Certificates:

1. Grade I or higher California Wastewater Treatment Plant Operator Certificate, or Grade I or higher California Water Environment Mechanical Technology Certificate.

Effective Date: April 7, 1975

Amended date: Oct. 22, 1999

Reason for Amendment:

To accurately reflect the experience and training guidelines as defined in the most recent job analysis conducted for this job code.

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

7373 SENIOR STATIONARY ENGINEER, SEWAGE PLANT

NOV 04 1999

SAN FRANCISCO
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Under general direction, during an assigned shift, is responsible for supervising and instructing workers in the safe operation, maintenance and repair of plant machinery and equipment in an assigned area of a sewage treatment plant, or several sewage pumping stations; personally participates in operation and/or maintenance and repair activities on plant machinery and equipment; and performs related duties as required.

Distinguishing Features:

Job code 7373 is a first-level supervisory position in an assigned area of a sewage treatment plant and/or pumping stations. This job code is distinguished from job code 7252 Chief Stationary Engineer, sewage treatment plant, in that the latter exercises supervision over an entire unit in a division, and participates in plant operational planning.

Supervision Exercised:

Supervises subordinates during an assigned shift, in an assigned area of a sewage treatment plant.

Example of Important and Essential Duties:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this job code and are not intended to be an inclusive list.

1. Makes regular inspection of treatment plant or assigned station to assure all equipment is functioning properly and all units are properly manned.
2. Supervises subordinates and instructs them in operational changeover of machinery and equipment substitutions in case of emergencies.
3. Supervises and trains subordinates in operation, maintenance and repair techniques and processes.
4. Checks plant log entries and sample collection activities of subordinates.
5. Makes required entries in plant log and prepares summary of the plant log on the completion of assigned shift.
6. Supervises and personally participates in making major or minor repairs to all treatment plant and pumping station machinery and equipment, including motor line starters, relays, automatic switches and a wide variety of metering and recording devices.
7. Checks and reviews completed work of subordinate plant operating personnel.
8. Requests materials, supplies and equipment necessary for maintenance and repair activities.
9. Makes regular bacteriological and chemical tests, sub-professional in nature and limited in variety, on raw sewage, raw sludge, effluent and digested sludge.

Job Related and Essential Qualifications:**Knowledge of:**

The operation and maintenance requirements of a wide variety of mechanical and electrical pumps, motors, controls and meter equipment; plumbing, steam-fitting and electrical repair work; the operation and servicing of internal combustion engines.

Ability to:

Analyze, maintain and repair a variety of mechanical and electrical equipment; make minor or major repairs to machinery and equipment as necessary; maintain plant operating records.

Skills:

Requires considerable skill in the use of hand tools as needed in the maintenance and repair of equipment.

Positions located at the San Francisco Airport require technical knowledge and skill to conduct bacteriological and chemical tests of various stages of the sewage treatment processes.

Experience and Training Guidelines:

1. Possession of a valid driver's license; **AND EITHER**
2. Five (5) years of verifiable journey level stationary engineer experience in the operation or maintenance of a wastewater treatment plant; **OR**
3. Completion of a recognized four-year Stationary Engineer, Sewage Plant Apprenticeship Program, plus one (1) year of experience as a journey level stationary engineer in a Wastewater treatment plant; **AND EITHER**
4. Possession of a current Grade III or higher California Wastewater Treatment Plant Operator Certificate at the time of appointment to an operator position at a plant; **OR**
5. Possession of Grade III or higher California Water Environment Mechanical Technology Certificate at the time of appointment to a position in the Maintenance Division of PUC Water Pollution Control.

Effective Date: April 7, 1975

Amended date: Oct. 22, 1999

Reason for Amendment:

To accurately reflect the experience and training guidelines as defined in the most recent job analysis conducted for this job code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: CHIEF ENGINEER, KALW RADIO STATION

CODE: 7374

CHARACTERISTICS OF THE CLASS:

Under direction, plans and directs the installation, maintenance and repair of broadcast FM radio studio audio and complex FM transmission systems; selects and develops necessary equipment for use by broadcast and production staff; trains and directs staff on the correct technical operation of station equipment; and performs related duties as required.

DISTINGUISHING FEATURES:

The incumbent of this single position class performs responsible broadcast engineering work in connection with the public educational radio station located at John O'Connell School and at the Twin Peaks transmitter site. Under the direction of the General Manager, KALW Radio Station, the incumbent installs, operates and maintains studio and transmitting systems in accordance with School District policies and FCC guidelines.

EXAMPLES OF DUTIES:

"The class specifications shall be descriptive of the class and shall not be considered as a restriction on the assignment of duties not specifically listed." (CSC Rule 7)

1. Installs, inspects and maintains FM transmitting equipment at Twin Peaks remote-controlled site.
2. Installs, inspects, diagnoses and repairs on-the-air broadcast studio equipment, satellite recording equipment, and production studio recording equipment at KALW studios.
3. Evaluates and recommends equipment modifications and changes as required by the KALW General Manager; orders necessary broadcast supplies as required.
4. Coordinates and operates complex studio and remote broadcasting of special events.
5. Assists in design and planning of special projects that require non-standard equipment configurations.
6. Performs weekly transmitter equipment preventative maintenance.
7. Reviews and requests corrections and/or clarifications by operations staff to entries on transmitter operating, program operating and satellite operating schedules and logs in order to comply with FCC regulations.
8. Installs, inspects, maintains and coordinates all technical operations of Sinocast SCA broadcast franchise.
9. Represents the station at meetings of the annual National Association of Broadcasters, the San Francisco chapter of the Society of Broadcast Engineers, the Bay Area Broadcast Engineering Society, the Northern California Frequency Coordinating Committee, and other technical broadcast engineering meetings as may be appropriate.

CLASS TITLE: CHIEF ENGINEER, KALW RADIO STATION

CODE: 7374

QUALIFICATIONS:

"The examination announcement shall provide the qualifications...and other particulars... Applicants must be guided solely by the announcement of the examination for which they apply." (CSC Rule 9)

Knowledge, Abilities and Skills: Good working knowledge of: the operation and technical installation, maintenance and repair of broadcast station equipment and other electronic communications systems and equipment (such equipment includes analog tape reel-to-reel multi-track recorder/reproducers, NAB cartridge tape and analog multi-track recorder/reproducers, remote control telemetry equipment, satellite receiver systems, digital audio); state of the art broadcast technologies; FCC and National Public Radio policies, guidelines and regulations; NAB standards of good engineering practice.

Ability to: utilize planning and organizational skills to implement station technical policy; communicate effectively in speech and writing; demonstrate good interpersonal skills with staff and management.

ADOPTED: 9/3/87

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SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: APPRENTICE STATIONARY ENGINEER, SEWAGE PLANT

CODE: 7375

CHARACTERISTICS OF THE CLASS:

Under immediate supervision, performs apprentice stationary engineer work as part of a recognized program established by the Joint Apprenticeship and Advisory Committee, Stationary Engineers' Trade; all work to be performed and the related supplemental instruction are enumerated in the Apprenticeship Standards formulated by said committee and are summarized in this specification; assists the stationary engineer in the operation and maintenance of a wide variety of complex machinery and equipment in a sewage treatment plant or pumping station; and performs related duties as required.

DISTINGUISHING FEATURES:

The Apprentice Stationary Engineer works under the immediate supervision of a qualified journeyman during the four-year apprenticeship required by the trade, learning the operation and maintenance of various machinery and equipment through diversified experience in on-the-job training and related instruction, in order to become a fully skilled craftsman, qualified for proper state certification. Employment in this position is limited to four years during which time the apprentice is expected to complete satisfactorily the training for each type of equipment and to qualify for promotion to journeyman Stationary Engineer.

EXAMPLES OF DUTIES:

1. Assists in visual inspection and/or manual tests of all plant machinery equipment in an assigned area or pumping station for proper operation.
2. Assists in adjusting valves and controls as required to maintain proper flow and treatment of sewage.
3. Assists in taking periodic readings of gauges and meters, in charting and recording results in plant operating logs.
4. Assists in performing a variety of manual tasks requiring the handling of equipment exposed to raw sewage; collecting raw sewage samples on prescribed schedule at specific locations; may assist in making simple chemical analyses of samples collected.
5. Assists in making major and minor repairs to all treatment plant and pumping stationary machinery including pumps, grit collectors, conveyors and washers, chlorinators, evaporators and storage tanks, sludge collectors, drive units, deodorizing equipment and a variety of metering and recording devices; assists in lubricating, greasing and cleaning machinery and equipment and maintaining work areas in a clean and orderly fashion; assists in servicing contacts on electric motor line starters, auxiliary relays and automatic switches.
6. Assists in the operation and maintenance of pumping, heating, ventilating and auxiliary plant machinery and equipment; assists in repairs and adjustments to electric motors, boilers, pumps, compressors, alarm systems, switchboards, controls, elevators and other machinery.

CLASS TITLE: APPRENTICE STATIONARY ENGINEER, SEWAGE PLANT

CODE: 7375

MINIMUM QUALIFICATIONS:

Requires selection by the Joint Apprenticeship Committee of the Stationary Engineer's Trade.

Requires aptitude to learn the methods, tools and equipment used in the operation, maintenance and repair of a variety of mechanical and electrical, pumping, heating, ventilating and related plant machinery and equipment.

PROMOTIVE LINES:

TO: 7372 Stationary Engineer, Sewage Plant

FROM: Entrance Class

ADOPTED: Dec. 15, 1975

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: SHEET METAL WORKER

CODE: 7376

CHARACTERISTICS OF THE CLASS:

Under general supervision, cuts, forms, fabricates, repairs and installs light gauge sheet metal materials and parts; and performs related duties as required. Nature of work requires: some physical effort and dexterity in the use of the fingers, limbs and body; exposure to working conditions where moderately serious injuries may occur.

EXAMPLES OF DUTIES:

1. Determines, from work orders or blueprints, work to be done and the type, cut and material needed; obtains metal from stock or on requisition and measures and marks it for cutting and forming; cuts out sheet metal parts using hand or power tools, bends and forms pieces and fastens parts together with joining equipment.
2. Erects scaffolds for work to be done in high locations.
3. Lifts and sets sheet metal parts and objects in place and connects with other units.
4. Uses solder, arc or acetylene or spot welding equipment to join metal parts and pieces.
5. Fabricates air conditioning and ventilator ducts, sinks, countertops and trays.
6. Fabricates outside sheet metal parts such as skylights, gutters, downspouts and louvers.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of journeyman level sheet metal working experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: the methods, practices, materials, equipment and tools of the sheet metal trade; the hazards and safety precautions of the work.

Requires ability to: fabricate, repair and install a wide variety of items made from sheet metal; follow oral and written instructions and work from instructions, sketches and blueprints to close tolerances.

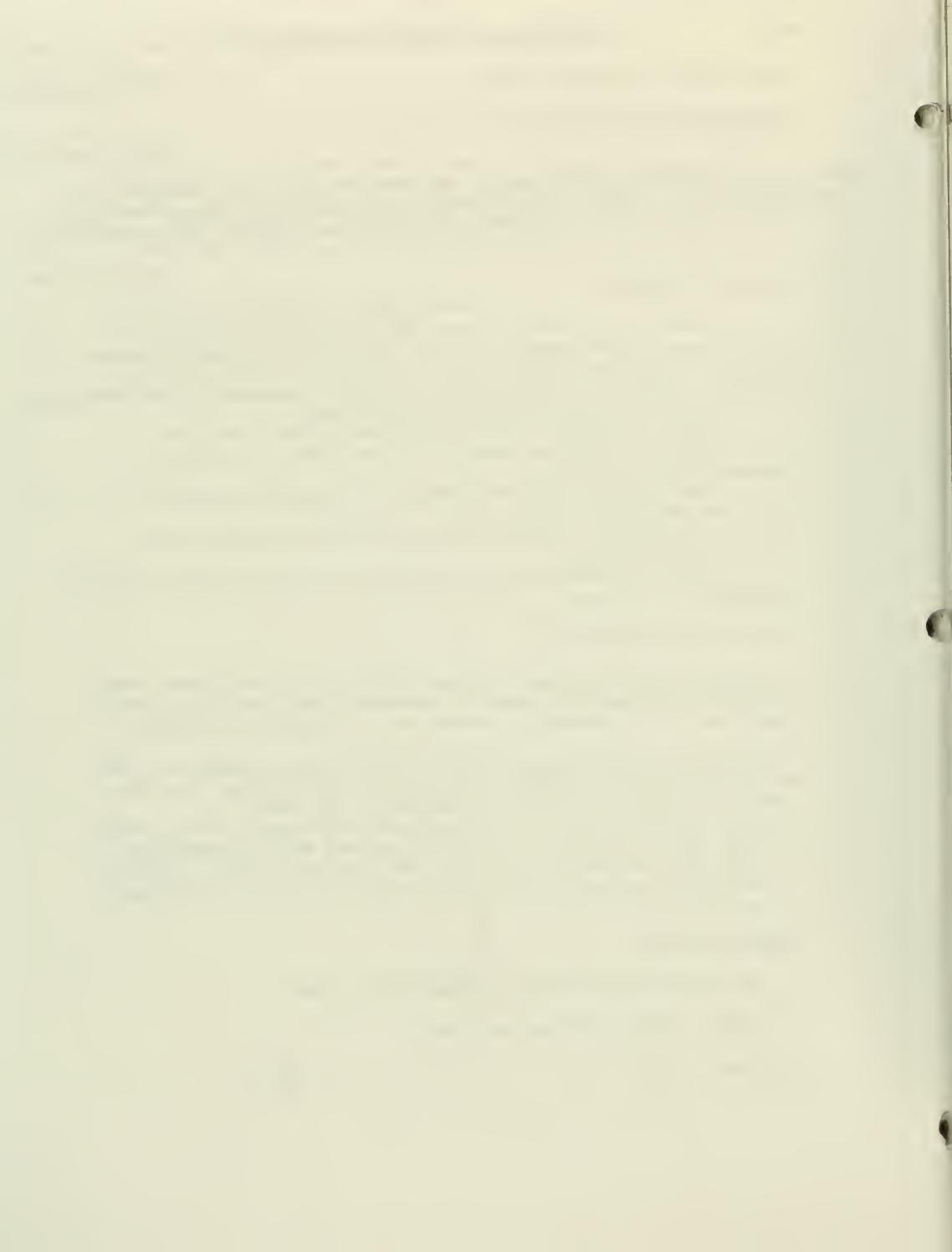
Requires considerable skill in the use of the tools and equipment of the trade.

PROMOTIVE LINES:

To: 9345 Sheet Metal Worker Supervisor I, Port

From: Original entrance examination

Retitled: 7/1/77



CLASS TITLE: STAGE ELECTRICIAN

CODE: 7377

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled electrical work in connection with the maintenance and operation of complex stage lighting systems and switch board; and performs related duties as required.

Requires responsibility for: explaining and carrying out existing methods and procedures relative to the proper operation and maintenance of stage lighting systems; making routine contacts with other departmental personnel and outside organizations in connection with stage lighting requirements. Nature of work requires some physical effort and dexterity in the use of fingers, limbs and body.

EXAMPLES OF DUTIES:

1. Sets up lighting and lighting sequences according to script or lighting cues for a variety of stage attractions.
2. Operates stage switch board in controlling the lighting sequences required for various stage productions.
3. Repairs and maintains all stage lighting equipment and auxiliaries, including dimmers, switches and controls.
4. Cleans and relamps all stage and auditorium light installations, spot lights, lenses and controls.
5. Services generating and hydraulic pump control equipment.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by three years of journeyman level experience in the maintenance, repair and operation of complex stage lighting equipment and facilities; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: stage productions, particularly as applied to their lighting requirements; the capacities and uses of stage lighting equipment; the use of electrical testing and repair instruments, tools and machinery.

Requires considerable ability to: plan and execute lighting sequences and utilize appropriate lighting equipment; maintain effective working relationships with production stage personnel.

Requires considerable skill in the precise timing and operation of stage lighting controls and equipment.

PROMOTIVE LINES:

To: Maintenance Electrician Foreman

From: Original entrance examination



**CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES**

JOB CODE TITLE: TILE SETTER

JOB CODE: 7378
Business Unit: COMMN

Definition:

Under general supervision, Tile Setters perform skilled, journey-level tile setting work in connection with the construction, maintenance, repair and remodeling of buildings and facilities; choose appropriate material based on job specifications; use hand and power tools; perform minor stucco and plaster work related to tile installation; match, cut, drill and fit tile, marble or glass block to desired space; mix and prepare mortar; set and repairs various types of tile, including vinyl and rubber floor tile; maintain tools and equipment; maintain records of completed work; and perform related duties as required.

Distinguishing Features:

The 7378 Tile Setter is a journey-level position with no lines of promotion. This position is distinguished from the 7307 Bricklayer in that the Bricklayer works with brick and concrete.

Supervision Exercised:

None.

Examples of Important and Essential Duties:

According to Civil Service Commission Rule 109, the duties specified below are representative of the range of duties assigned to this job code and are not intended to be an inclusive list.

1. Chooses appropriate tile, marble or glass block based on job specifications.
2. Matches, cuts, and drills tile using hand or power tools.
3. Demolishes, removes debris, cleans and prepares worksite for tile installation.
4. Mixes and prepares mortar that is suitable for the job.
5. Fits tile, marble and glass block according to correct setting procedures.
6. Repairs damaged tile.
7. Estimates amount of supplies and materials needed for job.
8. Maintains written records of work performed.
9. Drives a vehicle to work site.
10. Performs related duties as required.

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Job-related and Essential Qualifications:

Knowledge of: tile setting procedures; and work safety procedures.

Ability to: use hand and power tools; mix and prepare mortar, grout and thin set; maintain good working relationships; communicate effectively both orally and in writing; lift marble tiles, glass blocks, and heavy bags of mortar or cement; climb up or down ladders, to kneel, bend or squat for several minutes while laying or setting tile; and to operate a motor vehicle.

Experience and Training Guidelines:

Completion of a four-year apprenticeship as a tile setter or tile layer, and four years of experience as a journey-level tile setter. Additional qualifying experience can be substituted for an apprenticeship on a year-for-year basis.

License: Possession and maintenance of a valid driver license.

Special requirements:

1. Normal color vision.
2. Physical strength and agility.

Amended Date: 10/5/00

Reason for Amendment:

To reflect accurately the current tasks, knowledge, skills, and abilities defined in the most recent job analysis conducted for this job code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: ELECTRICAL TRANSIT MECHANIC

CODE: 7379

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled mechanical work in connection with the maintenance and repair of electrical transit equipment; makes emergency repairs to disabled equipment on the road; and performs related duties as required.

Nature of work involves considerable physical effort and dexterity in the use of fingers, limbs and body, with continuous exposure to physical and working conditions where minor injuries may be incurred.

EXAMPLES OF DUTIES:

1. Tests, repairs and maintains electric circuits, relays, contacts, controllers and compressors on street cars and trolley coaches; inspects and replaces main motor and motor generator brushes, leads and resistors; inspects and repairs passenger signal switches and buzzer circuits.
2. Removes and repairs electrical cam operating fingers, repairs and replaces all types of lights and sockets.
3. Removes and repairs electric current collecting equipment, electric magnetic valves and electric interlocks.
4. Removes and replaces motors in street car trucks; overhauls street car and cable car trucks.
5. Repairs and replaces cable car grips; replaces worn out grip parts; changes cable car grips on the road; replaces worn out track brake shoes on cable cars; checks brakes, grips, batteries and other mechanical operating parts of cable cars; replaces interior marker cleanings and head lights as required; wires electrical system on cable cars.
6. Inspects, maintains and repairs cable car generators and voltage regulators.
7. Lays out metal for shaping, bending and heating to conform with parts in street car and cable car trucks and street car and cable car body repair work.
8. Removes and replaces brake shoes; removes and replaces rear ends, wheels, bearings and rollers, drag links, brake cams, bushings, air lines and diaphragms.
9. Inspects, removes and replaces electrical parts of fare boxes.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of journeyman level experience in the maintenance, repair and over-haul of electrical transit equipment; or an equivalent combination of training and experience.

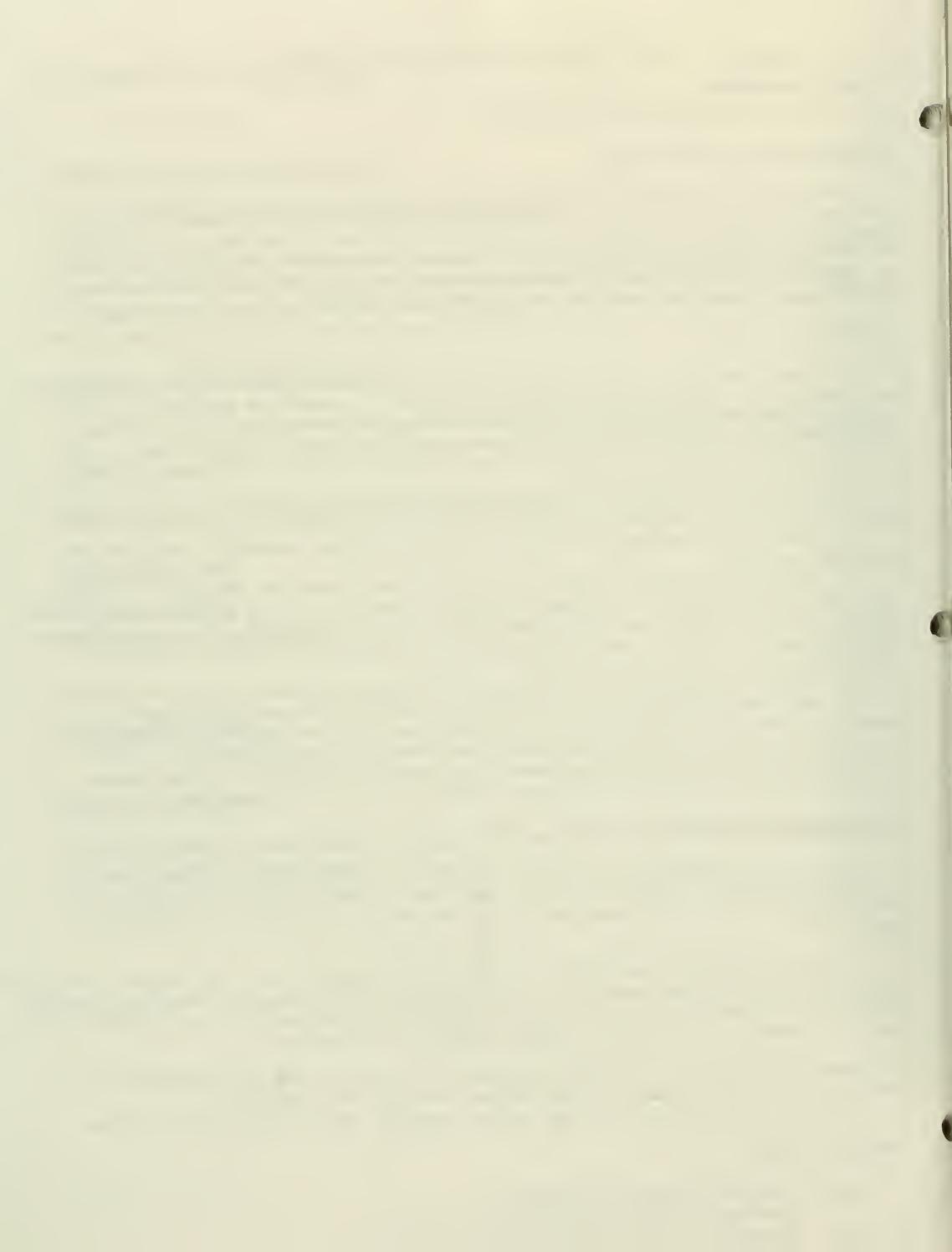
Knowledge, Abilities and Skills: Requires good knowledge of: the methods, materials, machinery, tools and equipment used in the maintenance and repair of electrical transit equipment; the operating and preventive maintenance requirements of such equipment; good working knowledge of electrical theory, testing and inspection.

Requires ability to: analyze malfunctions in electrical transit equipment and determine repair requirements; make time and material cost estimates.

Requires skill in the use of the tools, machinery and equipment of the trade.

PROMOTIVE LINES:

From: Original entrance examination
Electrical Transit Serviceman
To: Electrical Transit Mechanic Sub-Foreman



CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

JAN - 9 2001

SAN FRANCISCO
PUBLIC LIBRARYJOB CODE TITLE: ELECTRICAL TRANSIT MECHANIC ASSISTANT
SUPERVISORJOB CODE: 7380
BUSINESS UNIT: MTA**DEFINITION:**

Under general supervision, during an assigned shift, supervises a crew of electrical transit system mechanics and support personnel performing skilled electrical/mechanical work in connection with the maintenance and repair of transit vehicles and equipment.

DISTINGUISHING FEATURES:

This is the first supervisory level in the Electrical Transit Mechanic Supervisor series, which requires a high degree of journey-level competence. Requires the determination of correct procedures to accomplish the maintenance and repair of transit vehicles and equipment in a timely manner. Job code 7380 Electrical Transit Mechanic Assistant Supervisor is distinguished from the lower job code 7371 Electrical Transit System Mechanic in that the latter performs at the journey level with no supervisory responsibilities. Job code 7380 Electrical Transit Mechanic Assistant Supervisor is distinguished from the higher job code 7253 Electrical Transit Mechanic Supervisor I in that the latter is the second supervisory level with operational responsibility for an entire shift of craft workers.

SUPERVISION EXERCISED:

Incumbents in this job code exercise supervision over electrical transit system mechanics and other semi-skilled craft workers.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

According to Civil Service Commission Rule 409, the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.

1. Supervises a group of skilled craft and service employees to assure compliance with instructions.
2. Inspects incoming equipment to ensure that necessary repairs can be made.
3. Maintains and repairs the mechanical, electrical and pneumatic equipment of street cars, trolley coaches, cable cars and light rail vehicles to keep MUNI's rolling stock in running order.
4. Makes emergency repairs to electrical equipment by dispatching repair crews to ensure that as little vehicle use time as possible is lost.
5. Communicates orally and in writing with departmental personnel and others.
6. Requisitions supplies and parts to ensure that proper repairs can be made in a timely manner.
7. Performs basic mathematical computations in order to keep accurate records.
8. Reads and understands shop manuals, blueprints, diagrams, schematics and plans.

**JOB CODE TITLE: ELECTRICAL TRANSIT MECHANIC ASSISTANT
SUPERVISOR**

**JOB CODE: 7380
Business Unit: MTA**

9. Understands the use of the computer Vehicle Maintenance System(VMS) to ensure that work activities of the unit are kept up-to-date and information is accessible by management.
10. Performs related duties and responsibilities as assigned.

JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: Maintenance and repair practices and methods and use of materials, machinery, tools and equipment necessary for the maintenance and repair of transit vehicles and equipment.

Ability to: Analyze malfunctions in transit vehicles and determines repair requirements by inspecting equipment, testing equipment and checking equipment in relation to the related schematics, plans and blueprints; assign work, manage and review work completed, and to train subordinates and evaluate performance; perform basic addition, subtraction, multiplication and division and percentage.

Skill to: Communicate well verbally and in writing to the extent of giving instruction to subordinates, reporting to superiors and expressing ideas; maintain documents and reports related to the maintenance and repair of transit vehicles

EXPERIENCE AND TRAINING GUIDELINES:

Three years of journey-level experience in the maintenance and repair of electrical/mechanical transit vehicles; **OR**

Six years of helper/trainee experience in the maintenance and repair of electrical/mechanical transit vehicles.

Substitution:

Successful completion of two years of electrical/mechanical technology courses may substitute for up to one year of the three years of journey-level experience or two years of the helper/trainee experience.

OTHER REQUIREMENTS:

License:

Possession of a valid class C driver license.

Special Requirements:

The nature of work involves considerable physical effort to perform mechanical tasks on top of, under, inside and around large transit vehicles; exposure to high voltage wires and other potentially hazardous working conditions; and work in adverse weather or work conditions such as rain, cold, dirt and dust; (requires normal color vision). Incumbents may be assigned to any shift including nights, weekends and holidays.

Effective Date: 7/1/1977

Amended Date: 12/15/00

Reason for Amendment: To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis for this job code.

CLASS TITLE: AUTOMOTIVE MECHANIC

CODE: 7381

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled mechanical work in connection with the maintenance, repair and overhaul of a variety of automotive equipment; and performs related duties as required.

Nature of work involves: considerable physical effort and dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where minor injuries may be incurred.

EXAMPLES OF DUTIES:

1. Maintains, repairs and overhauls a variety of automotive equipment, including gas and diesel buses, trucks, passenger cars and fire apparatus.
2. Removes, repairs, overhauls and installs engines, brake systems, clutches, transmissions, differential assemblies and hydraulic systems.
3. Repairs and overhauls blowers, pumps, valves, piping systems, tanks, and similar accessory equipment.
4. Adjusts and installs pistons, rings and bearings; cleans, repairs and installs carburetors and fuel injection systems.
5. Maintains and installs lighting circuits and auxiliary actuating circuits; repairs and replaces generators; repairs, adjusts and installs ignition systems.
6. Turns brake drums; relines brake shoes; installs and adjusts braking systems.
7. Repairs and calibrates fuel pumps and speedometers.
8. Operates shop equipment and machine tools in connection with maintenance, repair and overhaul work, as necessary.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of journeyman level mechanical experience in the maintenance, repair and overhaul of automotive equipment; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good working knowledge of: the methods, materials, machinery, tools and equipment used in the maintenance, repair, and overhaul of a wide variety of automotive equipment; the operating and preventative maintenance requirements of such equipment.

Requires ability to: analyze malfunctions in automotive equipment; determine repair requirements; make time and material cost estimates.

Requires considerable skill in the use of the tools, machinery and equipment of the trade.

License: Requires possession of a valid state chauffeur's license.

CLASS TITLE: AUTOMOTIVE MECHANIC (continued)

CODE: 7381

PROMOTIVE LINES:

To: Automotive Mechanic Sub-Foreman

From: Original entrance examination

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: AUTOMOTIVE MECHANIC ASSISTANT SUPERVISOR

CODE: 7382

CHARACTERISTICS OF THE CLASS:

Under general supervision, during an assigned shift, performs skilled mechanical work in connection with the maintenance, repair and overhaul of a variety of automotive equipment; exercises work direction over a small group of subordinate mechanical craftsmen and servicemen engaged in such work; and performs related duties as required.

Requires responsibility for: explaining and carrying out existing maintenance and repair methods and procedures; preparing and maintaining ordinary operating and maintenance reports.

Nature of work involves: considerable physical effort and dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where minor injuries may be incurred.

EXAMPLES OF DUTIES:

1. Assigns maintenance, repair and overhaul jobs to subordinate mechanical craftsmen.
2. Inspects and reviews mechanical maintenance and repair of vehicles to assure conformance with instructions and standard procedures.
3. Maintains records of equipment mileage and service time of component parts of equipment.
4. Inspects incoming equipment for damage and malfunctions and arranges for necessary repairs.
5. Performs a variety of mechanical and appurtenant electrical maintenance and repair work on gas and diesel buses, passenger cars and trucks.
6. Operates shop equipment and machine tools such as valve facing and reseating machines, honing machines, pedestal grinders, power hack saws, brake riveters, drill presses, generator testers and other shop equipment within the jurisdiction of this craft in connection with maintenance, repair and overhaul work.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and five years of experience as journeyman automotive mechanic, preferably including some supervisory experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable working knowledge of: the methods, materials, machinery, tools and equipment used in the maintenance, repair and overhaul of a wide variety of automotive equipment; the operating and preventative maintenance requirements of such equipment.

Requires ability to: analyze malfunctions in automotive equipment; determine repair requirements; make time and material cost estimates; maintain shop and vehicle operating records.

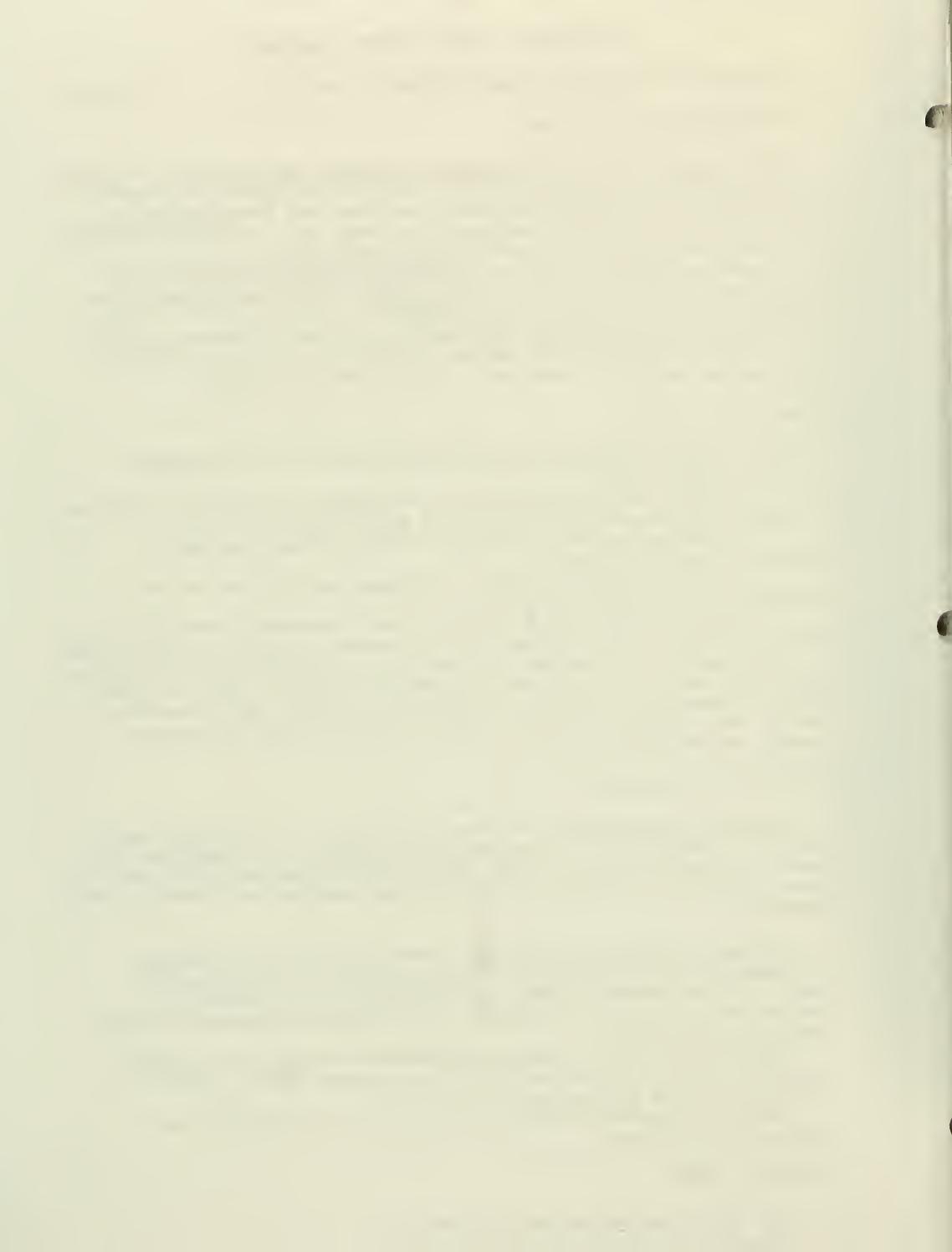
Requires considerable skill in the use of tools, machinery and equipment of the trade.

PROMOTIVE LINES:

To: 7249 Automotive Mechanic Supervisor I

From: 7381 Automotive Mechanic

Revised: 7/1/77



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: SEWING MACHINE REPAIRER

CODE: 7383

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled, journeyman-level mechanical and electrical repair work on various types of sewing machines used for classroom instructional purposes, including installation, maintenance, adjustment, repair and overhaul; and performs related duties as required.

Requires responsibility for: Carrying out existing policies and procedures related to sewing machine repair; making contact with teachers, school administrators, other departmental personnel and private vendors concerning sewing machine repair and upkeep; maintaining spare parts and inventory records.

EXAMPLES OF DUTIES:

1. Determines causes of sewing machine malfunctioning and repairs or replaces defective machine parts and electrical wiring.
2. Repairs and adjusts a variety of automatic control devices on various types of automatic sewing machines.
3. Performs routine maintenance on all sewing machines for which responsible; dismantles, inspects, cleans and reassembles machines, replacing worn parts when necessary.
4. Initiates requests for necessary parts to maintain sewing machine parts inventory.
5. Completes and forwards work orders upon satisfactory completion of required service.
6. Makes minor repairs on sewing machine cabinets.
7. May install or relocate sewing machines; recommends replacement of specific machines.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least four years of responsible experience in the maintenance and repair of electric sewing machines; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires a comprehensive knowledge of: The operation, maintenance and repair of electric sewing machines; current practices, processes, tools, materials and parts necessary to the maintenance of such machines; requires a knowledge of the basic principles of electricity and safety practices related to electrical equipment.

Requires ability to: Read blueprints and diagrams of automatic sewing machines; learn the characteristics of new machine types and models; operate sewing machines sufficiently well to test them; deal effectively with school personnel; prepare routine records and reports.

Requires considerable skill in the use of hand tools used in the repair of sewing machines.

License: Requires a valid California State Motor Vehicle Operator's License.

PROMOTIVE LINES:

To : No normal line of promotion

From: Original entrance examination

(NEW CLASS)

Adopted: 6/3/74



CLASS TITLE: TYPEWRITER REPAIRER

CODE: 7384

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs highly skilled typewriter maintenance, repair and overhaul work in the field and shop; makes minor repairs and adjustments to other office machines; and performs related duties as required.

Requires responsibility for: following established methods and procedures relative to typewriter and office machine repair; maintaining routine records of inspectional and repair work accomplished; making occasional contacts with office workers, division heads and business machine representatives.

EXAMPLES OF DUTIES:

1. Makes regularly scheduled services and emergency calls to maintain, service and repair manual and electric typewriters and office machines; makes major and minor repairs; overhauls and rebuilds and salvages parts on all makes and models of typewriters.
2. Dismantles electric and manual typewriters, cleans machine and parts in ammonia solution; dries parts in an industrial oven; replaces broken and worn parts; rebuilds as necessary for good operation.
3. Operates lathe, drill press and buffer; makes small machine parts, screws and shafts; requisitions, receipts for and maintains spare parts, spare parts lists and other supplies.
4. Fills requisitions for typewriters and other office machines; orders parts; takes inventory; maintains records and serial numbers of all machines; makes modifications and key board changes.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of responsible experience in the maintenance and repair of office machines and typewriters; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of the operation, maintenance and repair of manual and electric typewriters and office machines and the use of materials and tools necessary to the maintenance of such equipment.

Requires ability to: analyze malfunctions in typewriters and office machines and make effective repairs; deal courteously with other personnel; prepare ordinary operating records and reports.

Requires considerable skill in the use of appropriate hand tools.

License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES:

To: 7385 Senior Typewriter Repairer

From: Original Entrance Examination

Retitled: 7/1/77



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: SENIOR TYPEWRITER REPAIRER

CODE: 7385

CHARACTERISTICS OF THE CLASS:

Under direction, supervises the inspection, maintenance, overhaul and repair of various makes and models of typewriters and other office machines; performs highly skilled maintenance and repair work in connection therewith; and performs related duties as required.

Requires responsibility for: carrying out, interpreting and enforcing existing policies and methods relating to typewriter and office machine repair; making occasional responsible contacts on specialized matters with office workers; division and department heads and business machine representatives; maintaining important spare parts and inventory records.

EXAMPLES OF DUTIES:

1. Plans, assigns and supervises the work of others in the inspection, repair, overhauling and rebuilding of typewriters and office machines.

2. Makes regularly scheduled services and emergency calls to maintain, service and repair manual and electric typewriters and office machines; makes major and minor repairs, overhauls and rebuilds and salvages parts of all makes and models of typewriters.

3. Keeps records of excessive troubles on various makes and models of typewriters in order to give a true evaluation of mechanical failures and recommend models that will give most economical service.

4. Operates lathe, drill press and buffer; makes small machine parts, screws and shafts; requisitions, receipts for and maintains spare parts, spare parts lists and other supplies.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least four years of responsible experience in the maintenance and repair of office machines and typewriters, including one year of supervisory experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires comprehensive knowledge of the operation, maintenance and repair of a variety of manual and electric typewriters and office machines and the use of materials and tools necessary to the maintenance and repair of such equipment.

Requires ability to: plan, assign and supervise the work of others; analyze malfunctions in typewriters and office machines and make effective repairs; deal effectively with others; prepare ordinary operating records and reports.

Requires considerable skill in the use of appropriate hand tools.

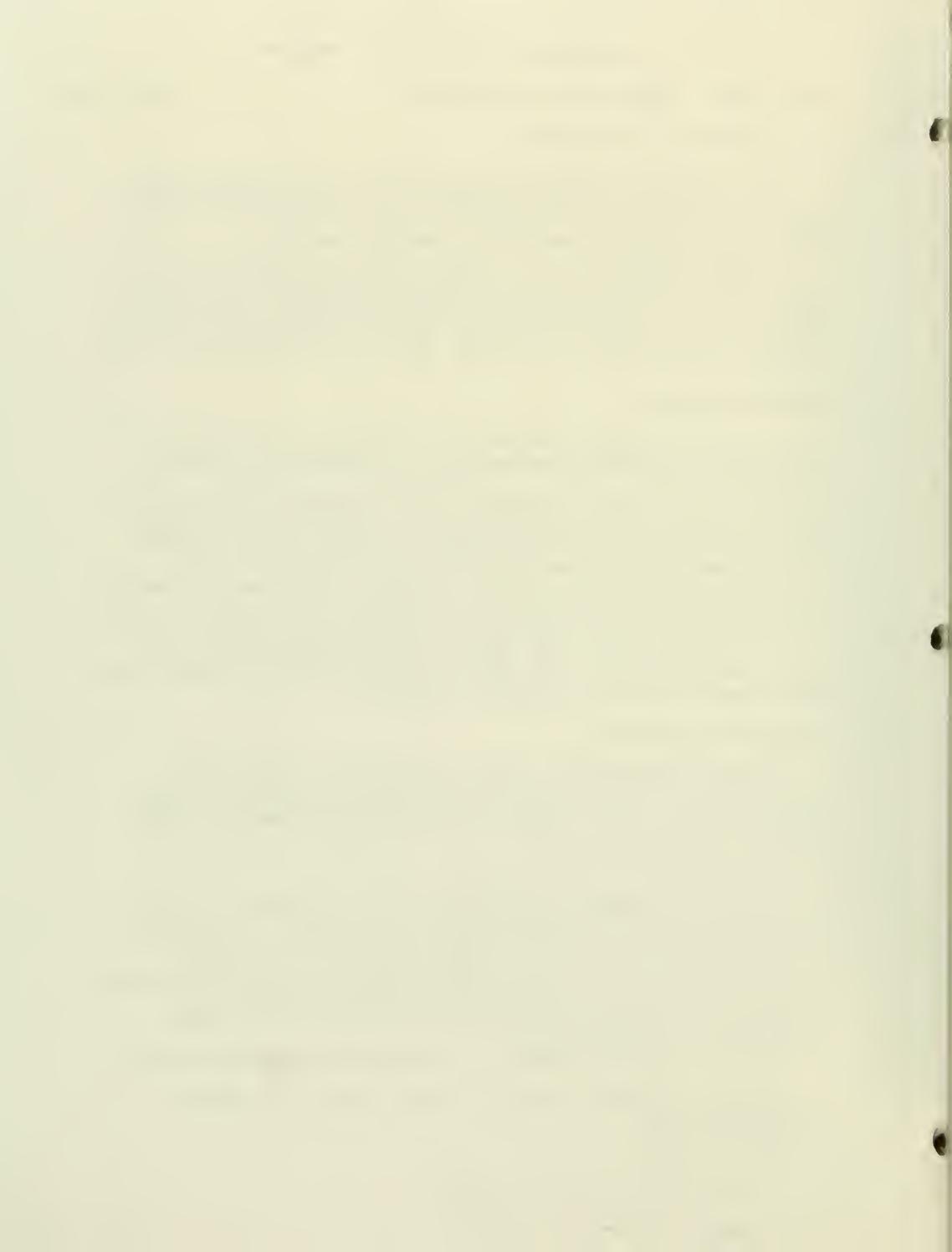
License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES:

To: No normal line of promotion

From: 7384 Typewriter Repairer

Retitled: 7/1/77



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: UTILITY PLUMBER ASSISTANT SUPERVISOR

CODE: 7386

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled plumbing work in the installation, maintenance and repair of water mains, pipes, meters, fire hydrants and hydrant leads; exercises work direction over a small group of subordinate personnel engaged in such work; and performs related duties as required.

Requires responsibility for: carrying out and explaining existing policies and methods relative to installation, maintenance and repair activities; preparing and maintaining records of time worked and materials expended by his subordinates. Nature of duties involves: considerable physical effort and dexterity in the use of the fingers, limbs and body; frequent exposure to physical and working conditions where moderately serious injury may occur; working in inclement weather and disagreeable elements with possible health hazards.

EXAMPLES OF DUTIES:

1. Performs duties of Utility Plumber; assigns duties to subordinates and supervises the installation of new water services and mains or the replacing or relocation of services; drills and taps water mains.
2. Supervises and participates in the locating and repairing of underground and surface leaks on service pipes and water mains; installs, changes, removes and makes field repairs to water meters; installs, re-locates or changes temporary water mains; conducts flow and pressure tests.
3. Supervises and assists in the excavation and backfilling of trenches, the disinfecting and flushing of mains and fittings and the setting up and operating of various equipment necessary to maintenance and installation activities.
4. Reports the progress of projects in process; prepares work reports, schedules and time records of subordinates.
5. Makes sure that all work is performed in a safe manner and that all equipment is kept in safe condition and replaced when necessary.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and five years of experience as a journeyman plumber, preferably on low or high pressure water systems with some supervisory experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable working knowledge of the methods, tools, equipment and supplies used in the installation, serving, repair and replacement of water mains, service pipes and connections, fire hydrants and other water supply installations.

Requires the ability to: carry out duties according to general instructions and use good judgment in directing the emergency repairs; co-operate with other employees in the performance of duties; supervise and inspect the work of a crew of men engaged in this type of work.

License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES:

To: 7230 Fire Department Water System Supervisor I
7250 Utility Plumber Supervisor I
7213 Plumber Supervisor I

From: 7388 Utility Plumber

ADOPTED: 6/4/64

Re-titled: 7/1/77



CLASS TITLE: UPHOLSTERER

CODE: 7387

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled work in connection with the fabrication and repair of upholstered equipment and related canvas and leather equipment; and performs related duties as required.

Requires normal responsibility in following established methods and procedures relating to fabricating and repair of upholstered equipment; achieving minor economies through efficient handling of supplies and equipment. Nature of work requires some physical effort and considerable manual dexterity in the use of the fingers, hands and arms.

EXAMPLES OF DUTIES:

1. Fits, cuts, sews, repairs and re-upholsters worn or damaged upholstered parts in coaches, street cars, automobiles, office furniture, fire and utility trucks.
2. Designs, makes and repairs mail bags, aprons, welders screens, fire extinguisher carrying cases, transit operator curtains, waterproof protective tarpaulins and covers for fire fighting apparatus and utility trucks.
3. Makes and repairs various straps, hoods, aprons, binders and other leather items.
4. Makes flags, pennants, safety jackets, typewriter covers and photographer cases; may re-string and re-ladder venetian blinds.
5. Inspects and surveys requested work, making such fittings, drawings and measurements as necessary, including cost estimates of labor and materials required.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of journeyman level upholstery experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of the techniques, tools and materials of the trade.

Requires ability to: follow written and oral instructions; work from patterns and sketches and prepare original patterns.

Requires considerable skill in the use of upholstery machines and materials.

PROMOTIVE LINES:

To: No normal line of promotion

From: Original entrance examination



(Amends specification)

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: UTILITY PLUMBER

CODE: 7388

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled plumbing work in the installation, maintenance and repair of water mains, pipes, meters, fire hydrants and hydrant leads; and performs related duties as required.

Requires responsibility for: carrying out and explaining existing policies and methods relative to installation, maintenance and repair activities; maintaining ordinary records of time worked and materials expended. Nature of duties involves: considerable physical effort and dexterity in the use of the fingers, limbs and body; frequent exposure to physical and working conditions where moderately serious injuries may occur; working in inclement weather and disagreeable elements with possible health hazards.

EXAMPLES OF DUTIES:

1. Installs new water services and mains or replaces or relocates services with copper, cast iron, wrought iron, plastic, or steel pipes and bronze, copper or galvanized fittings; drills and taps water mains.
2. Locates and repairs underground and surface leaks on service pipes and water mains; makes repairs under water pressure, using various methods; installs, changes, removes and makes field repairs to water meters; sets meters and meter boxes in conformity with established sidewalk grades; installs, relocates or changes temporary water mains and makes necessary alterations to water services and meters; removes meters and conducts flow and pressure tests.
3. Cleans and maintains traps; repairs gate valves; changes broken or worn spindles; repacks glands; assists in the operation of gate valves; checks air valves when filling mains; repairs leaks in cast iron mains using leak clamp for minor breaks, or in the case of large breaks, cuts out and removes broken section and installs new section; installs necessary piping and sets recording chart meters or registers on water mains and meters; recaulks joints on new and old mains; lays out and installs new mains and pertinent fittings.
4. Supervises a small crew of semi-skilled and unskilled helpers in the performance of various maintenance activities or installations of new services; supervises and assists in the excavation and backfilling of trenches, the disinfection and flushing of mains and fittings and the setting up and operating of various equipment necessary to maintenance and installation activities.
5. Inspects, services, repairs and replaces defective parts of high and low pressure fire hydrants; makes needed repairs in the field when possible or removes hydrants for shop repair; operates, inspects and makes repairs to high and low pressure gate valves; caulks joints using suitable caulking materials and tools; paints fire hydrants; rebuilds hydrant bodies, inspects the installation and alteration of high pressure mains and hydrant leads; tests, inspects and services building standpipes; inspects, makes repairs to and fills fire cisterns; makes repairs and adjustments to high pressure recorders; inspects, services, repairs and replaces defective parts of reservoirs and tanks; may perform incidental maintenance or installation of inside plumbing when required.

CLASS TITLE: UTILITY PLUMBER (continued)

Code: 7388

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft and three years of experience as a journeyman plumber, preferably on high pressure water systems; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of the methods, tools, equipment and supplies used in the installation, servicing, repair and replacement of water mains, service pipes and connections, fire hydrants and other water supply installations.

Requires the ability to: carry out duties according to instructions and use good judgment in making unsupervised or emergency repairs; cooperate with other employees in the performance of duties and supervise and inspect the work of subordinates.

License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES:

To : 7323 Fire Department Water System Assistant Supervisor
7250 Utility Plumber Supervisor I
7213 Plumber Supervisor I

From: Original entrance examination
7462 Utility Plumber Helper

AMENDED: March 18, 1968

Retitled: 7/1/77

CLASS TITLE: METALSMITH

CODE 7389

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs general metal forming, shaping, forging, fitting, finishing, heat treating and general fabricating, including general welding of various ferrous and nonferrous materials; does general anvil and power hammer forging work; heat treats, hardens and tempers metal parts and tools; operates gas and electric welding, cutting and burning equipment; and performs related duties as required.

Nature of work requires: Sustained physical effort involving occasional heavy lifting, bending and working in confined spaces with continuous exposure to potential injuries despite maximum application of safety devices, procedures and concentration to the work.

EXAMPLES OF DUTIES:

1. Forges, bends, shapes, welds, burns, forms and fabricates various metals from bar, angle, structural, sheet and wire stocks.
2. Does gas and electric welding, brazing, soldering, hard facing, cutting and burning of various ferrous and nonferrous metals and castings.
3. Details and lays out work prior to fabrication, modification or repair as required to accomplish assigned job; works from blueprints, shop sketches, drawings, patterns or models shown.
4. Lays out, fabricates, welds and repairs piping systems, tanks, containers and conveyor systems.
5. Restores, straightens, and aligns damages, broken or worn vehicular and other equipment and component parts thereof; dismantles and installs equipment as required.
6. Modifies, reinforces, makes up and repairs both new and existing vehicular truck body and chassis sections, including special purpose and construction equipment.
7. Makes all necessary fabrication and welding repairs to shop equipment and maintenance vehicles.
8. Finishes metal parts after completion of necessary fabrication processes.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in blacksmithing or welding with 3 years of recent journeyman experience in a position demanding the combined skills of general blacksmithing and welding, or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good working knowledge of: The use and application of various tools of the metal trades, including gas and electric welding equipment, forging and metal forming equipment; the physical properties of metals and the methods of identifying, heating and welding them.

Requires ability to: Work from blueprints, sketches, patterns or from models; to get along well with others; set up and adjust welding equipment.

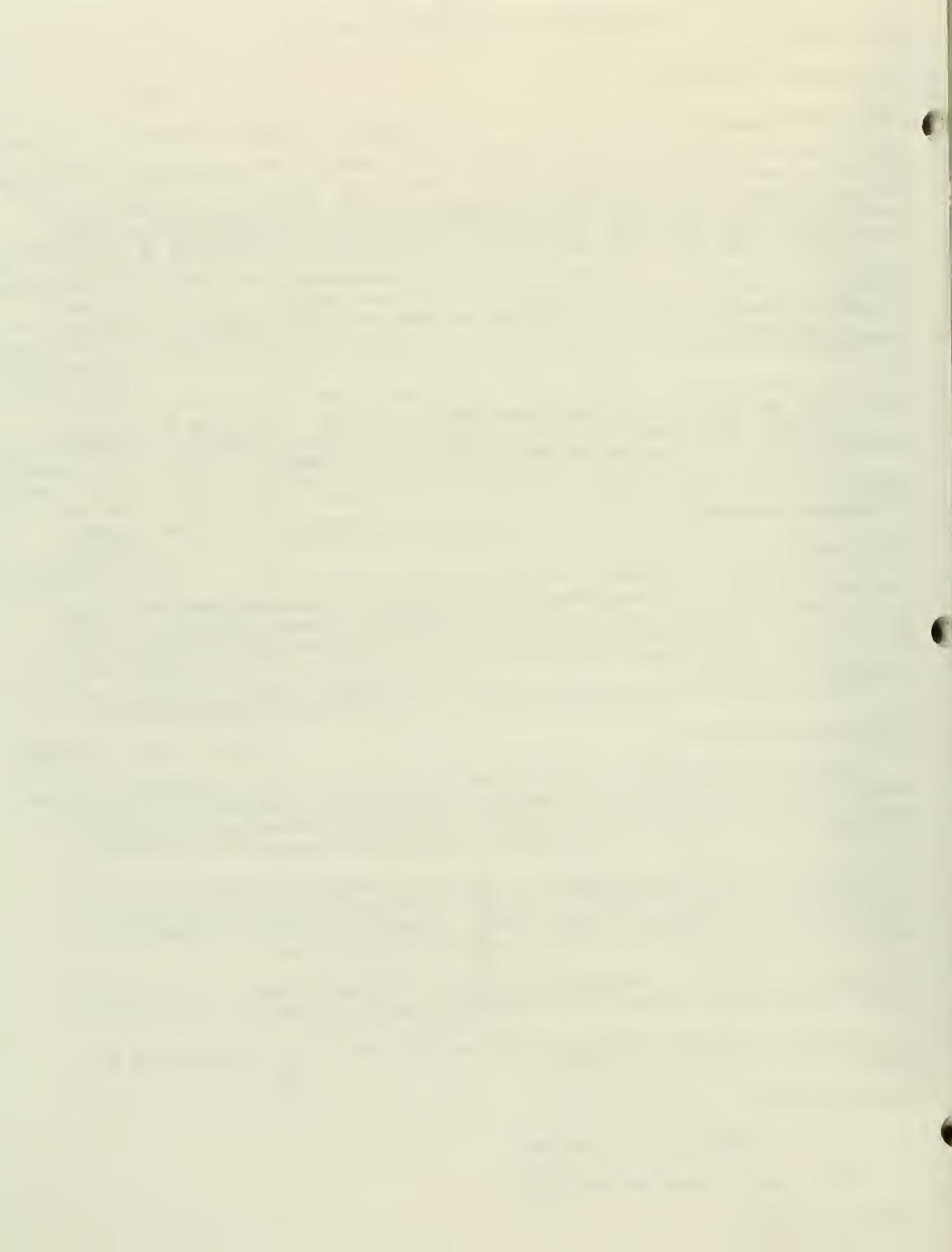
Requires a high degree of skill in the use and operation of blacksmithing and welding tools, material and equipment.

PROMOTIVE LINES:

To : No normal line of promotion

From: Original entrance examination

ADOPTED: 11/25/68



**CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES**

JOB CODE TITLE: WELDER

**JOB CODE: 7390
BUSINESS UNIT: COMMN
SFMTA**

Definition:

Under general direction, performs a variety of welding functions in connection with the repair and maintenance of facilities, street and subway railway track, transit vehicles and related equipment using oxyacetylene or electric arc welding methods.

Distinguishing Features:

The 7390 Welder performs skilled welding work related to the repair and maintenance of facilities, various types of transit vehicles and related equipment. The 7390 Welder is distinguished from Class 7360 Pipe Welder in that the latter installs, repairs and maintains water distribution pipelines and related facilities.

Supervision Exercised: None.

Examples of Important and Essential Duties:

According to Civil Service Commission Rule 109, the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.

1. Welds, brazes and burns broken and worn parts and repairs various types of equipment at various locations throughout the city.
2. Welds street railway track parts, switches, mates and frogs at various locations throughout the city
3. Makes repairs to other allied equipment for cable cars, street cars, trolley coaches, gas and diesel buses.
4. Lays out and fabricates piping systems, tanks, street repair and earth moving equipment parts.
5. Burns rails and bolts and grip dies.
6. Cuts plates for channel work on cable lines at various locations throughout the city.
7. Welds wheel flanges, repairs metal panels and other allied equipment.
8. Builds up, corrects, lays out and fabricates jigs and dies.
9. Makes all necessary welding repairs to shop equipment and maintenance vehicles, including fire apparatus frames, bumpers, motor blocks, gears and housing; aerial ladders, bodies and component parts, and attachments.
10. Scrapes, files, chips and grinds metal parts after completion of necessary welding operations.
11. Completes various daily tasks sheets and work related documents when necessary.
12. Performs other duties as required.

Job Related and Essential Qualifications:

Knowledge of: methods, procedures, practices and processes in welding, cutting and brazing using oxyacetylene and electric arc welding; and basic safety practices required for safe use of tools, materials and equipment.

Ability to: use and operate hand tools, oxyacetylene, electric and other welding equipment; deal effectively and courteously with staff, and personnel of other divisions; and understand and follow oral or written instructions.

Experience and Training Guidelines:

1. Three (3) years of experience as a journey-level welder using oxyacetylene and electric arc welding methods; AND
2. Possession of a valid class C driver license.

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JOB CODE TITLE: WELDER

JOB CODE: 7390
BUSINESS UNIT: COMMN
SFMTA

SUBSTITUTION:

Completion of a recognized training program in the field of welding may be substituted for one year of the required journey-level experience. Applicants qualifying under this provision must submit a certificate demonstrating completion of the training program from an accredited junior or community college, trade school or technical institution.

Effective Date: 1/18/71

Amended Date: 11/29/00

Reason for Amendment:

To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this job code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

(AMENDED)

CLASS TITLE: ORNAMENTAL IRON WORKER

CODE: 7395

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled work in connection with the installation, maintenance and repair of steel rolling doors, chain link fences, ornamental iron and other metal structures; may exercise work direction over subordinate personnel in such work and performs related duties as required.

EXAMPLES OF DUTIES:

1. Erects steel rolling doors; removes and replaces damaged steel slats, guides and rolling door operating gear.
2. Cleans and greases rolling door operating gear; fabricates new parts.
3. Details and erects chain link fencing; may prepare labor and material cost estimates for such work.
4. Maintains operating gear of cargo and ferry slip aprons.
5. Details, cuts, lays out and welds a variety of ornamental iron work and playground equipment; splices wire and manila rope.
6. Erects scaffolding; maintains shop equipment; orders and maintains records of materials and supplies.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school supplemented by completion of a recognized apprenticeship and three years journeyman level experience in the craft; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires thorough knowledge of the methods, materials, tools and equipment used in installing, maintaining and repairing steel rolling doors, fence erecting and ornamental iron work; requires familiarity with and the ability to use electric and gas welding equipment.

Requires ability to work from drawings, plans and sketches; prepare time and material cost estimates.

PROMOTIVE LINES:

To : 9342 Ornamental Iron Worker Supervisor I

From: Original entrance examination

AMENDED: 8/7/72

(Consolidate 9341 Steel Rolling Door Repairman)

Retitled: 7/1/77



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: TECHNICAL INSTRUCTIONAL ASSISTANT,
BROADCASTING EQUIPMENT TECHNICIAN

CODE: 7396

CHARACTERISTICS OF THE CLASS:

Under general supervision, is responsible for the operation and maintenance of a wide variety of broadcasting equipment; inspects and performs emergency, limited or routine repairs on such equipment; provides technical assistance in the purchases, installation and operation of equipment; and performs operationally related duties as required.

DISTINGUISHING FEATURES:

A Broadcasting Equipment Technician is distinguished from the next higher class Senior Broadcasting Equipment Technician in that the former works under supervision and is responsible for the more operational aspects involved with closed circuit broadcasting equipment, while the latter class has overall responsibility for the coordination, operation, maintenance and repair of the campus-wide closed circuit broadcasting system.

EXAMPLES OF DUTIES:

1. Maintains and monitors utilization records of closed-circuit broadcasting equipment and programs, inspects permanent and portable closed circuit broadcasting equipment and makes recommendations as to the repair on equipment.
2. Assists in the preparation of specifications for the purchase of closed-circuit broadcasting equipment, parts and supplies; provides technical assistance in the planning for and utilization of related equipment; helps in the instruction and demonstration of the proper use of such equipment.
3. Checks all new closed-circuit broadcasting equipment and supplies for compliance with specifications; supervises the issuing of equipment and supplies; maintains inventory of stock.
4. Participates in the distribution of closed-circuit radio and television programming and equipment.

DESIRABLE QUALIFICATIONS:

Training and Experience: Completion of high school, with additional training in the fundamentals of electronics and radio and television maintenance and repair.

Requires at least three years of increasingly responsible and varied experience in the operation and repair of closed-circuit broadcasting systems; or an equivalent combination of training and experience.

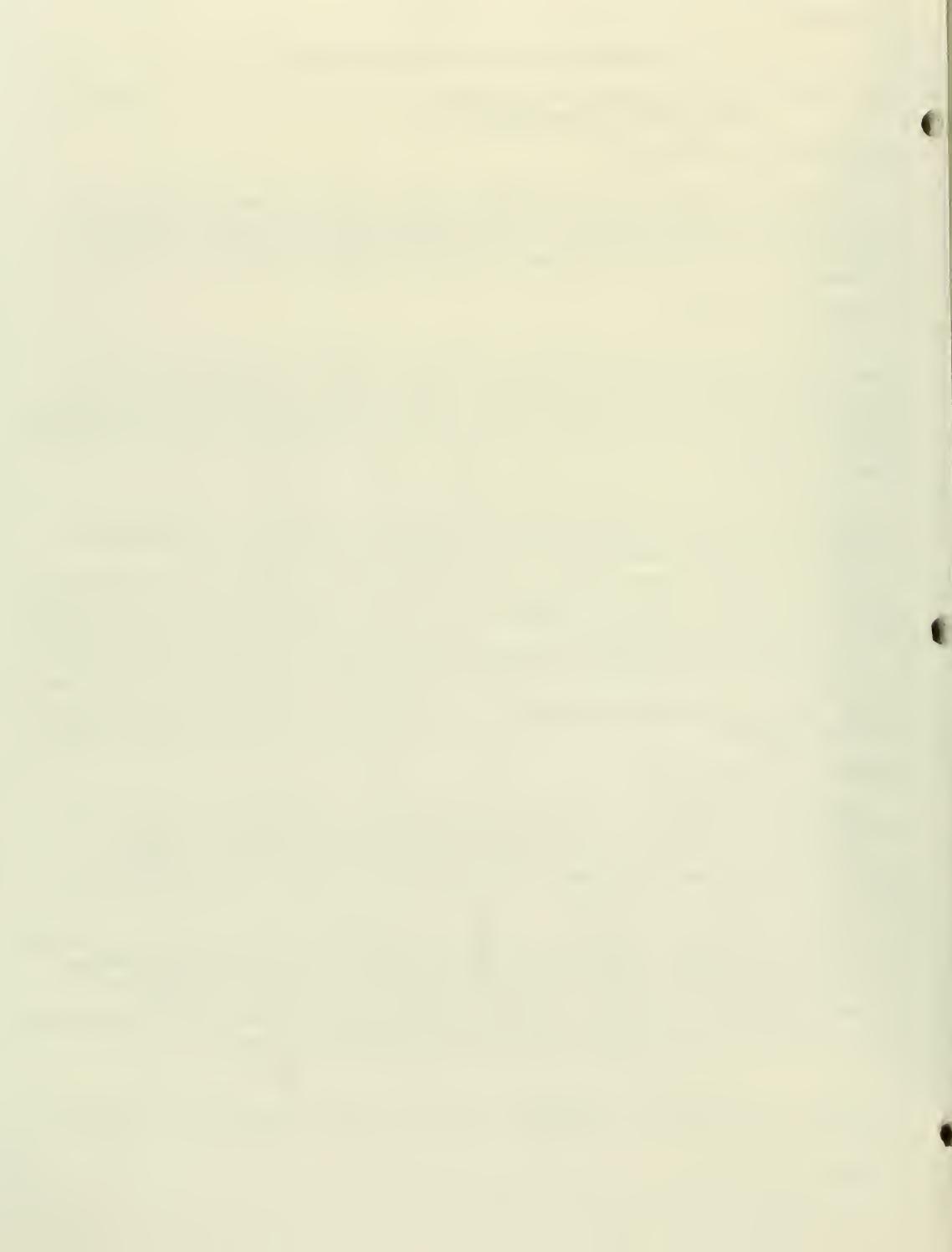
Knowledge, Abilities and Skills: Requires considerable knowledge of: the principles and practices of testing, operating and aligning closed-circuit broadcasting systems.

Requires ability to: provide technical assistance in the purchasing of closed-circuit broadcasting equipment; relate with faculty, staff and general public.

Requires skill in: the application of the methods and techniques used in inspecting, testing, operating and repairing closed circuit broadcasting equipment.

This class is exempt from examination under the provisions of Charter Section 8.300 (a)(2).

ADOPTED: 1-7-80



(NEW CLASS)

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: TECHNICAL INSTRUCTIONAL ASSISTANT,
SENIOR BROADCASTING EQUIPMENT TECHNICIAN

CODE: 7397

CHARACTERISTICS OF THE CLASS:

Under direction, is responsible for directing the operation, maintenance and repair of the City College of San Francisco closed-circuit broadcasting systems; supervises the activities of subordinate personnel engaged in such work; provides technical advice in the design, purchase, installation and operation of equipment; and performs operationally related duties as required.

DISTINGUISHING FEATURES:

A Senior Broadcasting Equipment Technician is distinguished from the next lower level, Broadcasting Equipment Technician, in that the incumbent in the higher class has overall responsibility for the coordination, operation, maintenance and repair work of the campus wide closed circuit broadcasting systems, while the lower level classification is more involved with the operational aspects and performs under general supervision. The incumbent of this position is responsible for laying out and assigning maintenance and repair work for subordinate personnel as well as determining technical policies and procedures for departmental operations.

EXAMPLES OF DUTIES:

1. Plans, supervises and participates in the maintenance, repair and operation of the college closed-circuit broadcasting systems; analyzes permanent and portable broadcasting equipment and assumes responsibility for maintenance, repair or replacement of same; assures emergency or routine repairs on equipment.
2. Prepares specifications for the purchase of closed-circuit broadcasting equipment, parts and supplies; provides technical advice in the planning for and utilization of related equipment; helps in the instruction and demonstration of the proper use of equipment.
3. Assures that supplies and materials are available for maintenance, repair and operation of all systems.
4. Supervises and participates in the distribution of closed-circuit radio and television programming and equipment on a campus-wide basis.

DESIRABLE QUALIFICATIONS:

Training and Experience: Completion of high school, with additional training in electronics and radio and television maintenance and repair.

Requires at least five years of increasingly responsible and varied experience in the design, operation, maintenance and repair of closed-circuit broadcasting systems; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires extensive knowledge of: the principles and practices of designing, testing, aligning and operating closed-circuit broadcasting systems.

Requires considerable ability to: provide technical expertise in the purchase of closed-circuit broadcasting equipment.

Requires skill to: train subordinate personnel in maintenance, repair and operating procedures; relate with faculty staff, and general public.

CLASS TITLE: TECHNICAL INSTRUCTIONAL ASSISTANT,
SENIOR BROADCASTING EQUIPMENT TECHNICIAN

CODE: 7397

DESIRABLE QUALIFICATIONS: (continued)

Licenses:

1. Possession of a valid second-class radio-telephone operator's license issued by the Federal Communication Commission is desirable.
2. Possession of a valid California state motor vehicle operator's license is desirable.

Note: This class is exempt from examination under the provisions of Charter Section 8.300 (a)(2).

ADOPTED: 1-7-80

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: SENIOR WATER TREATMENT PLANT OPERATOR

CODE: 7398

CHARACTERISTICS OF THE CLASS:

Under direction, supervises the operation and maintenance of a wide variety of complex machinery and equipment in a water filtration plant; and performs related duties as required.

Requires responsibility for: carrying out, explaining and enforcing established plant operating methods and procedures; achieving economies and preventing losses through efficient and accurate analysis and determination of chemicals dispensed in the purification of water; making occasional contacts with departmental and outside personnel in connection with plant maintenance and operational activities. Nature of work may involve the handling of, and exposure to, hazardous chemicals. May have to perform operations requiring use of gas mask, oxygen breathing equipment or respirators.

EXAMPLES OF DUTIES:

1. Supervises the operation of automatic and manually controlled purification and water filtration equipment including pumps, motors, chemical feeding equipment and filters to control the quality and regulate the flow of water through a treatment plant; may act as operator of the Water Treatment Plant.

2. Reviews the readings of meters, gauges and charts and correlates them with the quality of water produced.

3. Prepares shift schedules, and work assignments for subordinate personnel and arranges for emergency relief operators as needed; orders supplies of parts and equipment necessary for the efficient operation of a water filtration plant; responds to emergency calls on equipment breakdowns or malfunctions; makes emergency repairs or alterations; instructs other operating personnel in the proper operation of equipment in a modern filtration or water treatment plant.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least four years of experience within the last eight years in the operation, maintenance and repair of a wide variety of mechanical equipment including pumps, valves, rapid sand or anthrafil filters, chemical feeding equipment and auxiliary equipment, including one year of supervisory experience, or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires a good knowledge of: operation, maintenance and repair of chemical filtration equipment and machinery in a water treatment plant; operation and maintenance of water filtration beds and sedimentation basins; basic first aid especially as it applies to chemicals used in a water filtration plant.

Requires ability to: analyze and supervise the maintenance and repair of a variety of water filtration and control equipment of advanced design; evaluate plant records, reports and equipment diagrams and recommend improvements or solutions to problems to superiors.

License: Operator's License issued by the California Department of Motor Vehicles; Water Treatment Plant Certificate Grade II or higher, as issued by the California Section of the American Water Works Association.

CLASS TITLE: SENIOR WATER TREATMENT PLANT OPERATOR
(Continued)

CODE: 7398

PROMOTIVE LINES:

To: Chief Stationary Engineer
From: Water Treatment Plant Operator

ADOPTED: 6/3/65

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

JOB CODE TITLE: ASPHALT FINISHER

JOB CODE: 7404

Business Unit: COMMN

Definition:

Under supervision, spreads, rakes and finishes asphalt mixtures in connection with street maintenance and repair projects. Responsibilities include: operating asphalt kettle and tool heater; assisting in the clean-up of job site after asphaltic repairs; setting up job-sites in a safe manner; and performing related duties as required.

Distinguishing Features:

This is the journey-level in the asphalt worker series. It is distinguished from the 7502 Asphalt Worker by its duties in that the former performs the asphalt finishing and is responsible for the safety set-up of the worksite.

Supervision Exercised:

None.

Examples of Important and Essential Duties:

According to Civil Service commission Rule 9, the duties specified below are representative of the range of duties assigned to this job code and are not intended to be an inclusive list.

1. Spreads and rakes asphaltic mixtures.
2. Irons asphalt to obtain a compact and smooth surface.
3. Cleans cut-outs and prepares sub-grades before paving.
4. Assists in clean-up of job site after asphaltic repairs.
5. Sets up job site (including cones, barricades, highrises and signs) in a safe manner.
6. Completes standard job reports.
7. May operate the screed on an asphalt paver.
8. May be the groundsman on an asphalt milling machine.
9. May operate asphalt kettle and tool heater.

Job Related and Essential Qualifications:

Knowledge of: techniques and equipment used in spreading, finishing milling operation and in making accurate estimates of paving materials required for various projects; knowledge of distribution of various tack coat emulsions, patch paving, shovelling and rolling asphaltic mixtures; basic safety practices required for safe use of tools, materials and equipment.

Ability to: understand and follow oral instructions; complete standard written reports and understand and follow written instructions.

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JOB CODE TITLE: ASPHALT FINISHER

JOB CODE: 7404
Business Unit: COMMN

Experience and Training Guidelines:

Two years of verifiable experience in street paving and repair work as an asphalt worker.

Effective Date: 1/12/61

Amended Date: 5/5/00

Reason for Amendment:

To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this job code.

CLASS TITLE: ASSISTANT POWER HOUSE OPERATOR

CODE: 7408

CHARACTERISTICS OF THE CLASS:

Under supervision, during an assigned watch, assists in operating, cleaning and making minor repairs to power house and sub-station equipment; and performs related duties as required.

Requires responsibility for: carrying out existing methods and procedures relative to power generation and distribution activities; assisting in preparing and maintaining routine plant operating records. Nature of work involves: some physical effort and dexterity in the use of fingers, limbs and body; exposure to physical and working conditions where moderately serious injuries may occur and working conditions that are somewhat disagreeable due to continuous noise.

EXAMPLES OF DUTIES:

1. Assists power house operators by taking temperature and pressure readings; starting and stopping equipment; and repairing equipment during emergency breakdowns.
2. Inspects, tests, operates and cleans valves, piping and equipment of assigned generator units; inspects, greases and oils various auxiliary parts; cleans floor space and equipment.
3. Starts, shuts down and blocks hydraulic drive machinery on generating units; operates governor oil pressure sets and related valves and equipment; inspects and cleans transformer banks, oil circuit breakers; maintains governor controlled motors and exhaust and air circulated fan motors; operates governor by hand control when repairs or adjustments are being made on mechanical control equipment.
4. During periods of interruption, reduces speed on generators and maintains governor oil pressures accordingly; operates auxiliary water wheel pressure set as necessary; operates centrifugal cooling and sump water pumps; operates bearing and lubricating oil pumps and filters; cleans excitors, commutators and replaces worn brushes; changes graphic pressure charts on assigned shift.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least one year of experience in the operation and minor maintenance of general mechanical and electrical plant equipment; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires knowledge of: the fundamentals of electricity, particularly as applied to power generation or distribution; the methods and techniques of general mechanical repair work.

Requires ability to: follow oral and written instructions; make minor repairs and adjustments to electrical and mechanical generating or distribution machinery and equipment; maintain simple operating records.

CLASS TITLE: ASSISTANT POWER HOUSE OPERATOR
(continued)

CODE: 7408

PROMOTIVE LINES:

To: Power House Operator

From: Original entrance examination

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: ELECTRICAL TRANSIT SERVICE WORKER

CODE: 7409

CHARACTERISTICS OF THE CLASS:

Under supervision, performs semi-skilled work in connection with the routine maintenance and servicing of electrical transit equipment; assists in making emergency repairs to disabled equipment on the road; and performs related duties as required.

Nature of work requires: some physical effort and dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where minor injuries may be incurred.

EXAMPLES OF DUTIES:

1. Assists electrical transit mechanics in removing, repairing and replacing worn or defective electrical, mechanical or pneumatic equipment or parts on street cars, trolley coaches and cable cars; assists in testing, repairing and maintaining electric circuits, relays, contacts, controllers, and other electrical parts.

2. Inspects brakes, axles, frames, lights, doors and safety equipment on electric street cars, trolley coaches and cable cars for proper functioning; inspects trolley ropes, retrievers, trolley poles, pole bases and trolley shoes; checks and refills differentials when needed; inspects wheels for loose studs and worn flanges.

3. Lubricates trucks and other parts of electric transit equipment.

4. Removes, replaces and repairs seats, sand boxes and related equipment; salvages materials from scrapped electrical transit equipment.

5. Assigns electric transit equipment to proper position or space for shop work and pull-outs, according to assignment sheets.

6. Operates mobile equipment for servicing or towing disabled electric transit vehicles to shop; makes service calls to field locations as necessary.

7. Maintains shop areas in clean and orderly condition.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by at least two years of experience in the maintenance and servicing of electric transit equipment or general electrical maintenance and repair; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good working knowledge of: the methods, materials, lubricants, tools and equipment used in servicing and maintaining electrical transit equipment; the operating and preventive maintenance requirements of such equipment; some mechanical aptitude; some knowledge of electrical theory, testing and inspection.

Requires ability to: follow oral and written instructions and operate a variety of mobile servicing equipment.

License: Requires possession of a valid state motor vehicle operator's license.

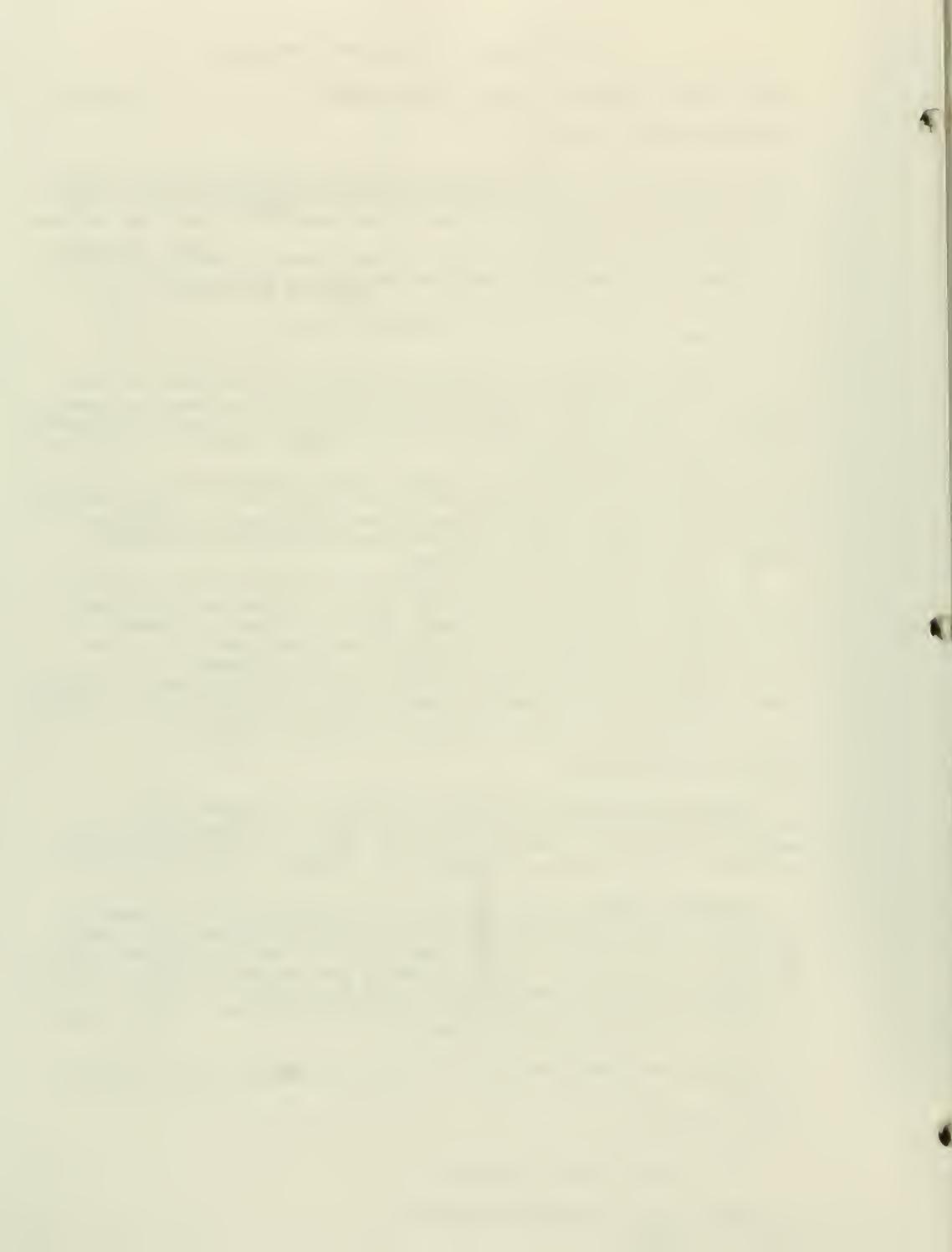
PROMOTIVE LINES:

To: No normal lines of promotion

From: Original Entrance examination

Revised: 10/5/61

Retitled: 7/1/77



CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES7410 AUTOMOTIVE SERVICE WORKER

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Definition: Under supervision, performs semi-skilled work in connection with the maintenance, servicing, and cleaning of a wide variety of diesel and gasoline powered vehicles including servicing heavy equipment vehicles; operates a variety of automotive servicing equipment; drives repaired vehicles to various requested delivery sites; performs visual safety checks; operates stationary equipment related to the above duties; and performs related duties as required.

Distinguishing Features: The Automotive Service Worker is the fully qualified, semi-skilled level in this series. Incumbents are expected to be able to perform the full range of routine semi and unskilled tasks required to service, clean and maintain automotive equipment. Class 7410 is distinguished from class 7412 Automotive Service Worker Assistant Supervisor by the latter's supervisory responsibility and performance of more difficult and complex functions.

Supervision Exercised: None

Example of Important and Essential Duties:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this job code and are not intended to be an inclusive list.

1. Checks and dispenses fuel, oil and water to a variety of automotive equipment; drains, flushes and fills crank cases, transmissions and differentials and changes oil filters as necessary.
2. Lubricates a variety of transportation and mobile equipment; washes, polishes and steam cleans equipment and parts.
3. Operates a variety of automotive servicing equipment such as fuel pumps, battery chargers, grease guns, pneumatic tools and hydraulic hoists.
4. Makes minor mechanical repairs including the following: changes and repairs tires and tubes; checks and changes storage batteries; installs mirrors, battery cables, grease fittings, wiper blades, hoses, and other routine parts.
5. Operates mobile equipment for servicing and performing minor on-site repairs or towing disabled vehicles to shop; makes service calls to field locations as necessary.
6. May occasionally choose parts for mechanical repair and maintenance of equipment.
7. Maintains shop areas in clean and orderly condition.
8. Performs routine vehicle preventive maintenance inspections, reports any vehicle defects, prepares routine reports on servicing and maintenance activities.
9. Washes and cleans vehicle interior and exterior; removes and replaces seats; disinfects and deodorizes vehicles as required.
10. Posts and removes signs, notices, defect cards, and circulars in transit equipment.
11. At the Municipal Railway, may operate fare collections equipment.
12. May operate tire shop or refueling station.
13. Performs related duties and responsibilities as assigned.

Job Related and Essential Qualifications:

Knowledge of: methods, materials, lubricants, tools and equipment used in servicing, cleaning and routine maintenance of automotive equipment.

Ability to: follow oral and written English instructions to maintain simple records of activities.

Skill to: operate a variety of types of mobile equipment.

Experience and Training Guidelines:

Training: completion of an accredited academic, trade or technical institution with six months of coursework in Auto Mechanics.

Experience: one year of experience performing semi-skilled work in the maintenance, servicing, and safety-checking of gasoline or diesel vehicles.

License or Certificate: possession of a valid class C driver's license.

Essential duties require the following physical skills and work environment: exposure to disagreeable weather conditions and hazardous work situations; lifting heavy objects and carrying them for moderate distances; wearing required safety equipment, such as a respirator or dust mask.

Effective Date: 7/1/77

Amended Date: 11/19/79; 7/23/99

Reason for Amendment:

To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this job code.

**CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES**

**JOB CODE TITLE: AUTOMOTIVE SERVICE WORKER
ASSISTANT SUPERVISOR**

**JOB CODE: 7412
Business Unit: COMMN**

DEFINITION: Under general supervision, the Automotive Service Worker Assistant Supervisor performs semi-skilled work in connection with the maintenance and servicing of a wide variety of automotive equipment, exercises work direction over a small group of subordinate service workers engaged in such work, and performs related duties as required.

DISTINGUISHING FEATURES: This is the assistant supervisor position in the Automotive Service Worker series. It is distinguished from the 7410 Automotive Service Worker by its supervisory duties.

SUPERVISION EXERCISED: Positions in this job code supervise 7410 Automotive Service Workers.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

According to Civil Service Commission Rule 109, the duties specified below are representative of the range of duties assigned to 7412 Automotive Service Worker Assistant Supervisor and are not intended to be an inclusive list.

- 1) Operates and supervises the operation of a variety of automotive servicing equipment such as towing vehicles, tire repair and balancing equipment, fuel pumps, automotive oil dispensers, battery chargers, grease guns, and other equipment for maintaining vehicles.
- 2) Assigns road calls in response to field service calls requiring tire changing, starting stalled vehicles with booster cables/battery charger, priming a fuel system, fueling and restarting a diesel engine, minor on-site repairs, or towing disabled vehicles to service center.
- 3) Operates and supervises the operation of refueling station by dispensing correct fuel (gasoline, diesel, etc.), checking oil levels, radiator coolant, and tire pressure and performing other routine service and safety checks.
- 4) Performs and supervises regular and preventative maintenance on vehicles such as changing engine oil and filter; checking cooling system, changing transmission fluid and filters, checking and changing differential fluid; adjusting belts; inspecting brake linings, tire condition and pressure, vehicle lights, and wiper blades/motor; and making visual safety checks of vehicle. Under general supervision, makes minor repairs such as tire changes; replacement of batteries and cables, light bulbs, wiper blades, belts and radiator hoses; greases fittings and other similar repairs. Also includes the regular interior and exterior cleaning of the vehicle.
- 5) Maintains and supervises the maintenance of shop area by keeping the area clear of refuse and debris. Includes ensuring that all equipment is in good working condition and correctly stored.
- 6) Prepares shop records by correctly completing vehicle maintenance forms, job work orders, vendor purchase orders, requisitions to storekeeper, vehicle trouble reports, and warranty forms.
- 7) Supervises a group of employees by assigning work, overseeing employees, reviewing work and training subordinates.
- 8) Assists automotive mechanics, as required by supervisor, in working on specified automotive jobs requiring mechanic supervision. This refers to jobs such as additional mechanical repairs, vehicle inspection and salvaging parts and equipment from disabled vehicles

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JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: service equipment for the maintenance of vehicles and the use of such equipment in a safe and efficient manner; the differences in motor oils and their uses; repairing, changing, and balancing tires; changing belts and filters; charging batteries and starting an engine with booster cables; fueling and priming a fuel system; checking vehicle lights; simple routine servicing and safety checks.

Ability to: drive a variety of vehicles, such as tow trucks, fork lifts, cranes and road equipment; use basic hand tools such as wrenches, hammers, screwdrivers, etc.; give and follow verbal instructions; respond orally in a clear manner using correct terminology related to automotive service equipment; prepare written instructions, reports, records, and forms as required; read documents such as technical manuals and operating instructions; work effectively supervisors, subordinates, vendors, automotive mechanics, and others; supervise subordinates through planning, assigning and monitoring their work; train subordinates with the proper use of service equipment and in the performance of required duties.

EXPERIENCE AND TRAINING GUIDELINES

- 1) Three years of verifiable work experience performing semi-skilled work in maintenance, servicing, and safety-checks of gasoline and diesel vehicles at a level equivalent to job code 7410 Automotive Service Worker. (Service Station experience will be accepted only if it includes servicing and maintenance of vehicles. Experience in self-service stations is not qualifying); and
- 2) Possession of a current valid Class C Driver's License.

Effective Date: 7/1/77

Amended Date: 5/16/01

Reason for Amendment: To accurately reflect the current tasks, knowledge, skills, and abilities defined in the most recent job analysis conducted for this job code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: BLACKSMITH FINISHER

CODE: 7414

CHARACTERISTICS OF THE CLASS:

Under supervision, performs semi-skilled work in connection with the forging, bending, shaping and finishing of metals for the manufacture, repair and maintenance of a variety of machinery, equipment and facilities; and performs related duties as required.

Nature of work involves: considerable physical effort and dexterity in the use of the fingers, limbs and body; continuous exposure to physical and working conditions where moderately serious injuries may be encountered.

EXAMPLES OF DUTIES:

1. Assists blacksmiths in forging, forming, shaping, hardening, tempering and welding various metals.
2. Assists in the repair of maintenance, automotive, truck, transit and welding equipment, other tools, parts and equipment for various city departments.
3. Operates air hammer to forge steel parts, such as brake beams, brake rods, brake hangers, grip shanks, king pins, adjusting rods, grip brakes; assists blacksmith in repair of component parts of heavy equipment.
4. Grinds tools and steel parts to be fitted; keeps all blacksmith tools in good working condition.
5. Builds and tends forge fires; heats and tends pieces of iron and steel to be worked; may cut and arrange stock.
6. Assists in making repairs and keeps the shop clean and in order.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by completion of a recognized apprenticeship in the craft or three years of experience as a blacksmith's finisher or as a blacksmith; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires knowledge of: the methods and practices of the blacksmithing trade; the tools, materials and equipment used; firing gas and coal furnaces.

Requires ability to understand and follow simple instructions.

Requires some skill in the use and care of common blacksmithing tools and equipment.

PROMOTIVE LINES:

To: Blacksmith

From: Original entrance examination



CLASS TITLE: BOOK REPAIRER

CODE: 7416

CHARACTERISTICS OF THE CLASS:

Under supervision, performs various semi-skilled duties relating to the repair, maintenance and processing of public library books and performs related duties as required.

Nature of work requires considerable dexterity in the use of the fingers and hands in book repair activities.

EXAMPLES OF DUTIES:

1. Reinforces, recases, rebacks or resews books, sheet music, magazines, telephone books, and other printed material.
2. Inserts pamphlets in binders; binds pamphlets in covers; punches, assembles, collates and binds a wide variety of printed materials; hinges, stitches and covers bound material.
3. Trims and mounts plates; erases and cleans soiled pages and stains; cleans and oils leather bound volumes; resews, cleans and oils leather pouches; reletters call numbers on books.
4. Replaces pockets and reference plates.

MINIMUM QUALIFICATIONS:

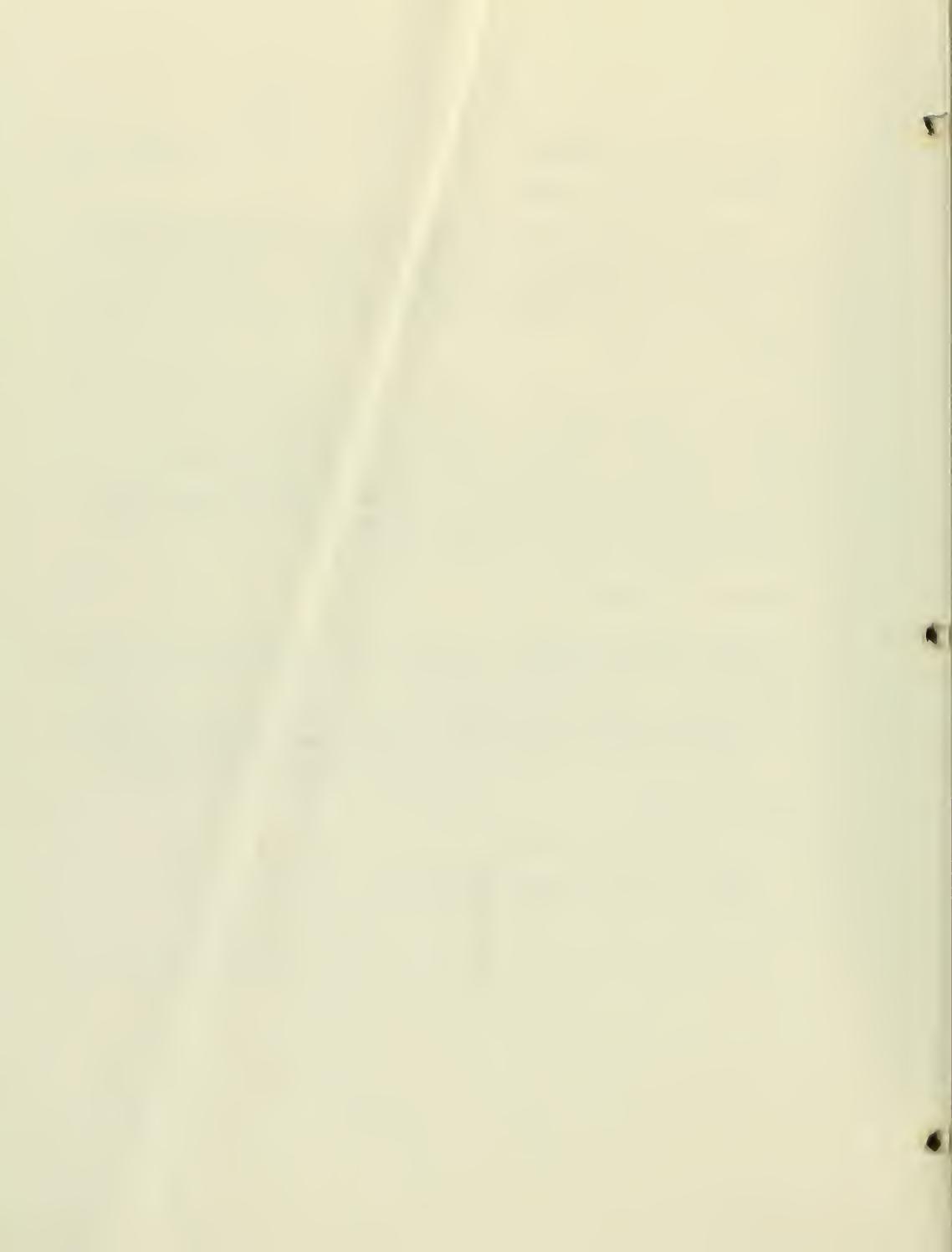
Training and Experience: Requires completion of eight years of elementary school, supplemented by one year of experience in the binding and restoring of books and similar printed materials; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires knowledge of the tools, materials, processes and methods used in book repair and restoring work. Requires skill in the use of book repairing tools and equipment.

PROMOTIVE LINES:

To: Senior Book Repairer

From: Original Entrance Examination



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: SENIOR BOOK REPAIRER

CODE: 7418

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs semi-skilled duties in connection with the repair, restoring and processing of public library books; exercises work direction over a small group of subordinate personnel engaged in such work; and performs related duties as required.

Requires responsibility for: carrying out and explaining existing methods and procedures relating to the repairing and mending of damaged library books, magazines and other printed material; maintaining simple records of time and work accomplished. Nature of work requires considerable manual dexterity in maintaining and repairing library books, magazines and other printed material.

EXAMPLES OF DUTIES:

1. Mends, repairs, reinforces, recases, rebacks, recovers and resews library books, magazines and other printed material; does special hand binding; makes file boxes and portfolios; mounts special maps and photographs.

2. Supervises and assigns work to subordinate personnel; inspects books for physical condition, segregates same into groups according to type of work required and issues instructions for repair; reviews repaired items and segregates and prepares for return to branches.

3. Keeps time records of subordinates and maintains simple records on books repaired.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by additional training in book repairing and two years of book repair experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: the tools, materials, processes and methods used in book repair and restoring work.

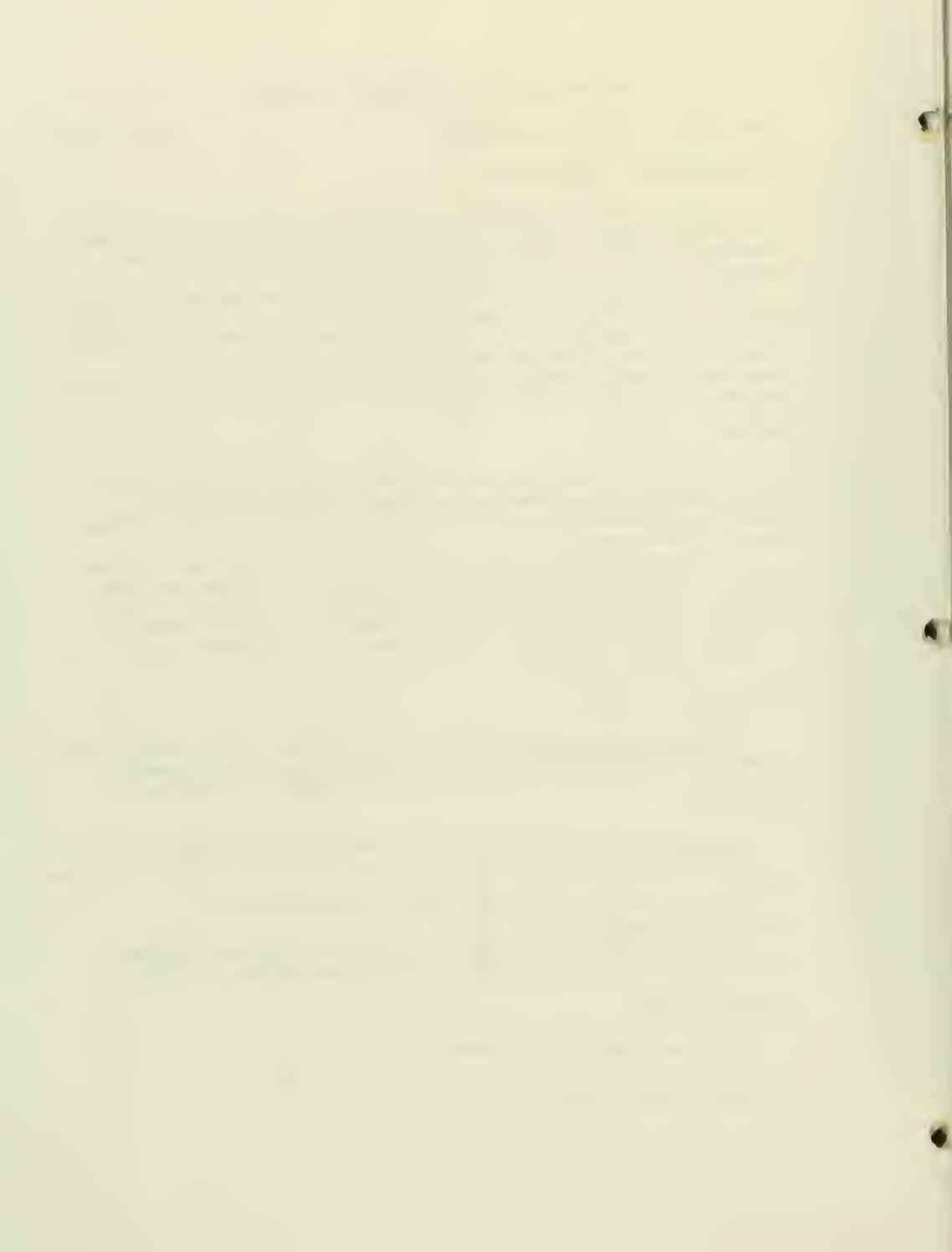
Requires ability to lay-out, assign, and review the work of subordinate personnel.

Requires skill in the use of a variety of materials, supplies, tools and equipment used in book repairing and binding activities.

PROMOTIVE LINES:

To: No normal line of promotion

From: Book Repairer



CLASS TITLE: BRIDGETENDER

CODE: 7420

CHARACTERISTICS OF THE CLASS:

Under general supervision, operates, maintains and makes minor emergency repairs to machinery and equipment of an electrically operated lift bridge; and performs related duties as required.

Requires responsibility for preparing routing reports of bridge operations.

Nature of the work requires some physical effort and dexterity in the operation and maintenance of bridges.

EXAMPLES OF DUTIES:

1. Opens and closes bridge for passage of vessels.
2. Inspects bridge and working parts to assure proper operating condition; oils, cleans and cares for bridge machinery and equipment.
3. Places and maintains navigation lights.
4. Keeps simple records and makes reports on bridge operations, accidents and ship movements.
5. Cleans and maintains bridge house and orders supplies for maintenance and operation of bridge house, machinery and equipment.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of general mechanical and electrical maintenance and repair experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires knowledge of the fundamentals of electricity and mechanical maintenance methods and procedures; the signals and rules of navigation.

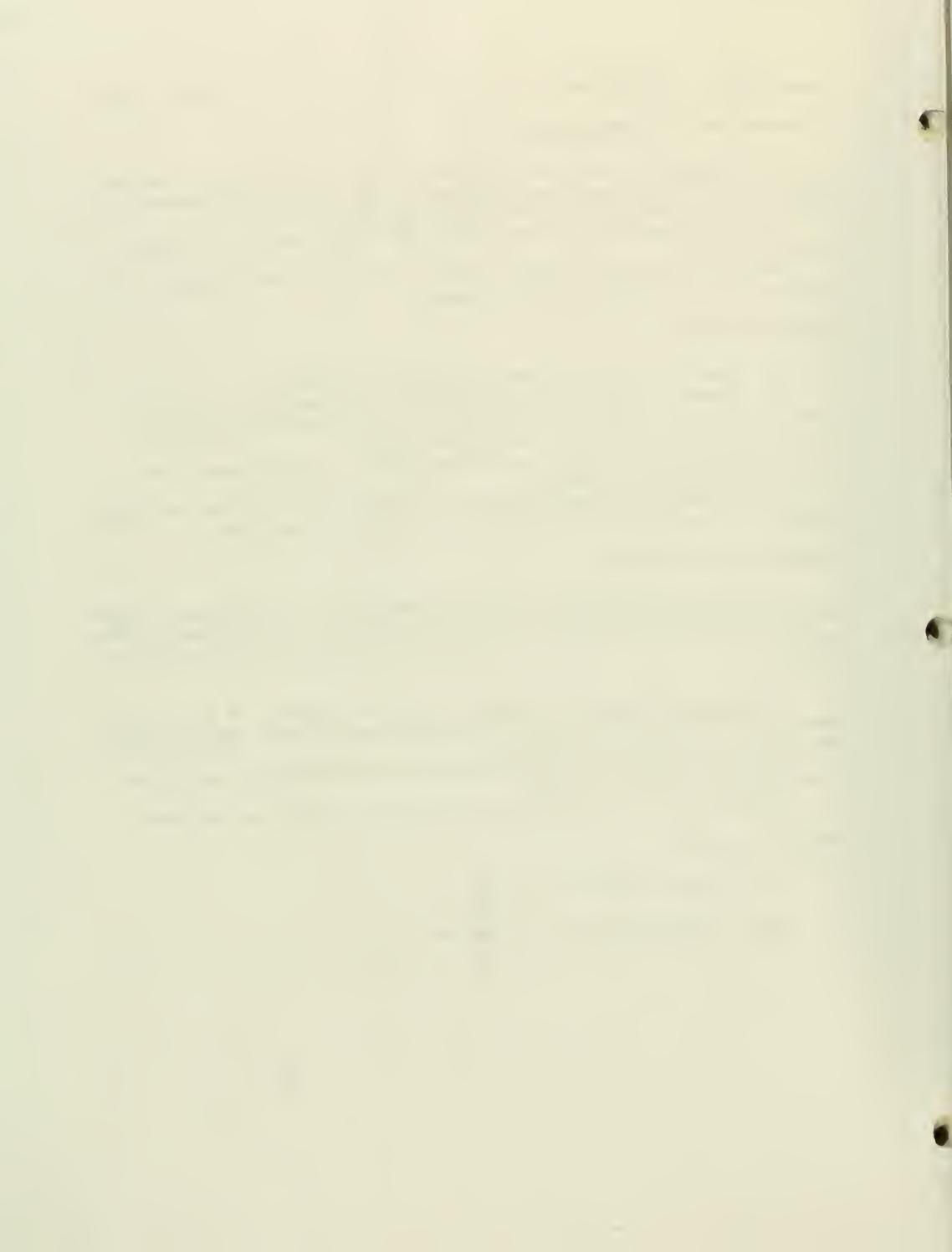
Requires ability to understand and follow instructions and to prepare simple operational reports.

Requires skill in the operation of bridge controls and equipment.

PROMOTIVE LINES:

To: No normal lines of promotion

From: Original entrance examination



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: SEWER MAINTENANCE WORKER

CODE: 7421

Under general supervision, performs a variety of routine sewer maintenance and repair tasks such as excavating and shoring of trenches, replacing pipe sections, flushing, cleaning and inspecting sewers; performs related duties as required.

DISTINGUISHING FEATURES:

Nature of work requires sustained physical effort involving considerable standing, bending and working in close quarters; some dexterity in the use of fingers, limbs and body; exposure to working conditions where moderately serious injuries may occur; continuous exposure to extremely disagreeable working conditions involving work with and in raw sewage and in the presence of vermin; long periods of time in dark confined spaces. This class differs from the next higher class of Sewer Service Worker in that the latter job requires practical knowledge of sewer hydraulics and skills in identifying and diagnosing problems in sewer systems.

EXAMPLES OF DUTIES:

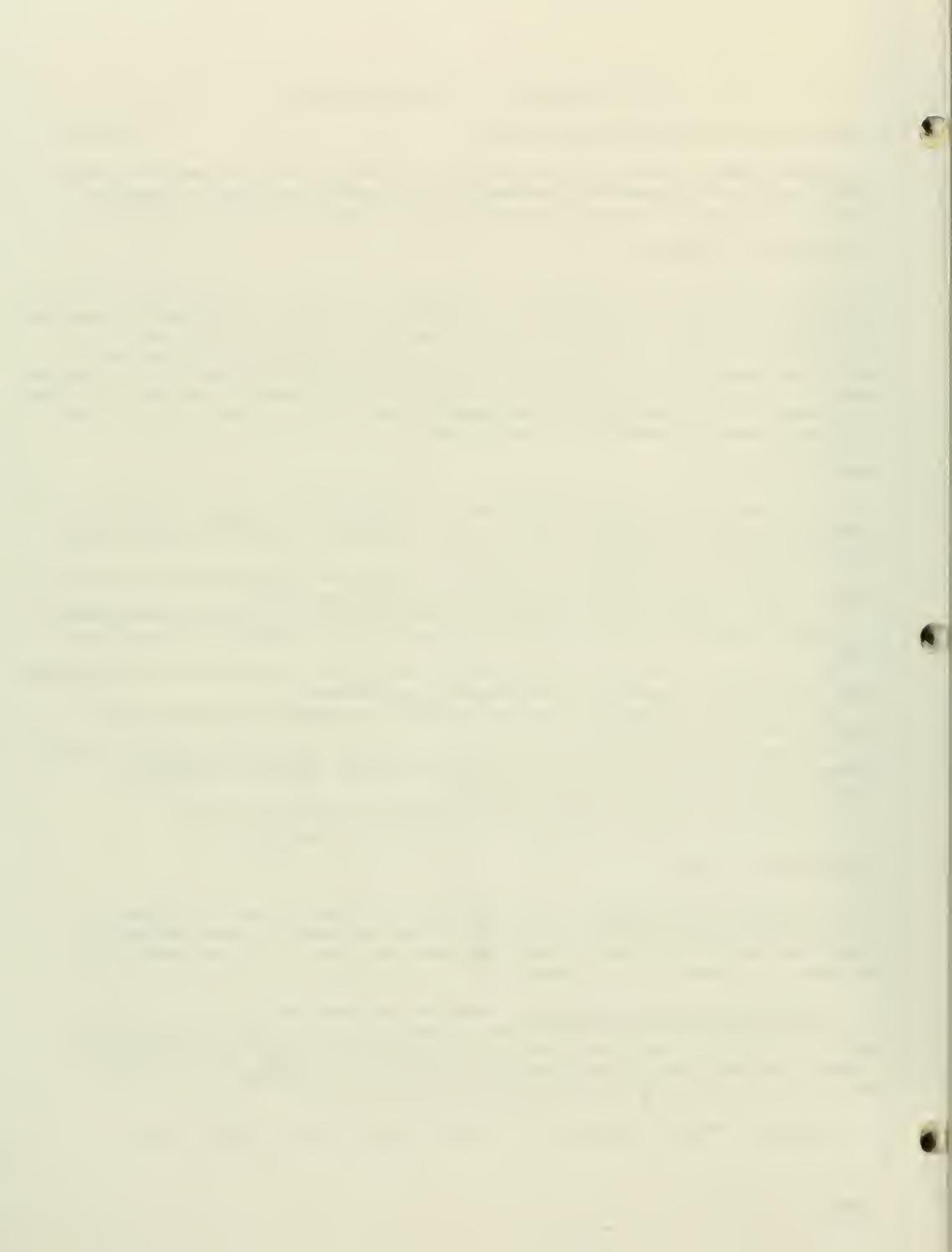
1. Cleans main and side sewers, manholes, catch basins, grates, sumps and other miscellaneous sewer structures; cleans channels and tanks in sewer treatment plants and pump stations as required.
2. Loads dirt collected from sewer onto trucks; wets down trenches and builds dams in sewer lines to divert flow during maintenance operations.
3. Cuts, fits and installs hydraulic, wood and metal shoring to OSHA standards for trench excavation; removes such shoring for re-use on completion of sewer repair work.
4. Performs installation of new sewer pipe sections; assures that all barricades, flags and lights are properly installed around excavations.
5. Assures all street openings are properly barricaded and in safe condition when work is not in progress.
6. Operates air compressors, air hammers and other mechanical equipment in the excavating and backfilling of trenches; operates manual and power equipment in cleaning sewers and other sewer structures.
7. Writes up routine reports of maintenance and repair activities.
8. May drive trucks to transport workers and small equipment.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires at least two years of verifiable general laboring experience, preferably including at least one year in trench excavation or sewer cleaning and one year in operating heavy duty construction equipment such as jackhammers, chippers and air hammers.

Knowledge, Abilities and Skills: Requires good knowledge of trench excavation practices, methods and tools as required by OSHA standards; rough carpentry skills; skills in the use of hand tools and power operated devices such as air compressors, winches, pavement breakers and trash pumps; ability to communicate clearly; and ability to follow oral and written instructions accurately.

License: Requires possession of a valid state drivers license, class 3.



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: CRIBBER

CODE: 7422

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs heavy manual and rough carpentry work in connection with the excavation, timbering and shoring of trenches necessary to the maintenance of underground sewers; and performs related duties as required.

Nature of work requires: considerable physical effort and some dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where moderately serious injuries are encountered; regular exposure to very disagreeable working conditions in and around raw sewage.

EXAMPLES OF DUTIES:

1. Operates air compressors, air hammers and other mechanical equipment in the excavating and backfilling of trenches.
2. Cuts, fits and installs planks and timbers to shore up holes or deep trenches; removes such planks and timbers on completion of sewer repair work.
3. May assist in the installation of new sewer lines; assures that all barricades, flags and lights are properly installed around excavations.
4. Assures that all open excavations are properly covered when work is not in progress.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by at least one year of experience in rough carpentry work involving the timbering and shoring of tunnels, shafts or similar excavations; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: the practices, methods, materials and tools used in rough carpentry and heavy timbering work.

Requires ability to follow oral and written instructions.

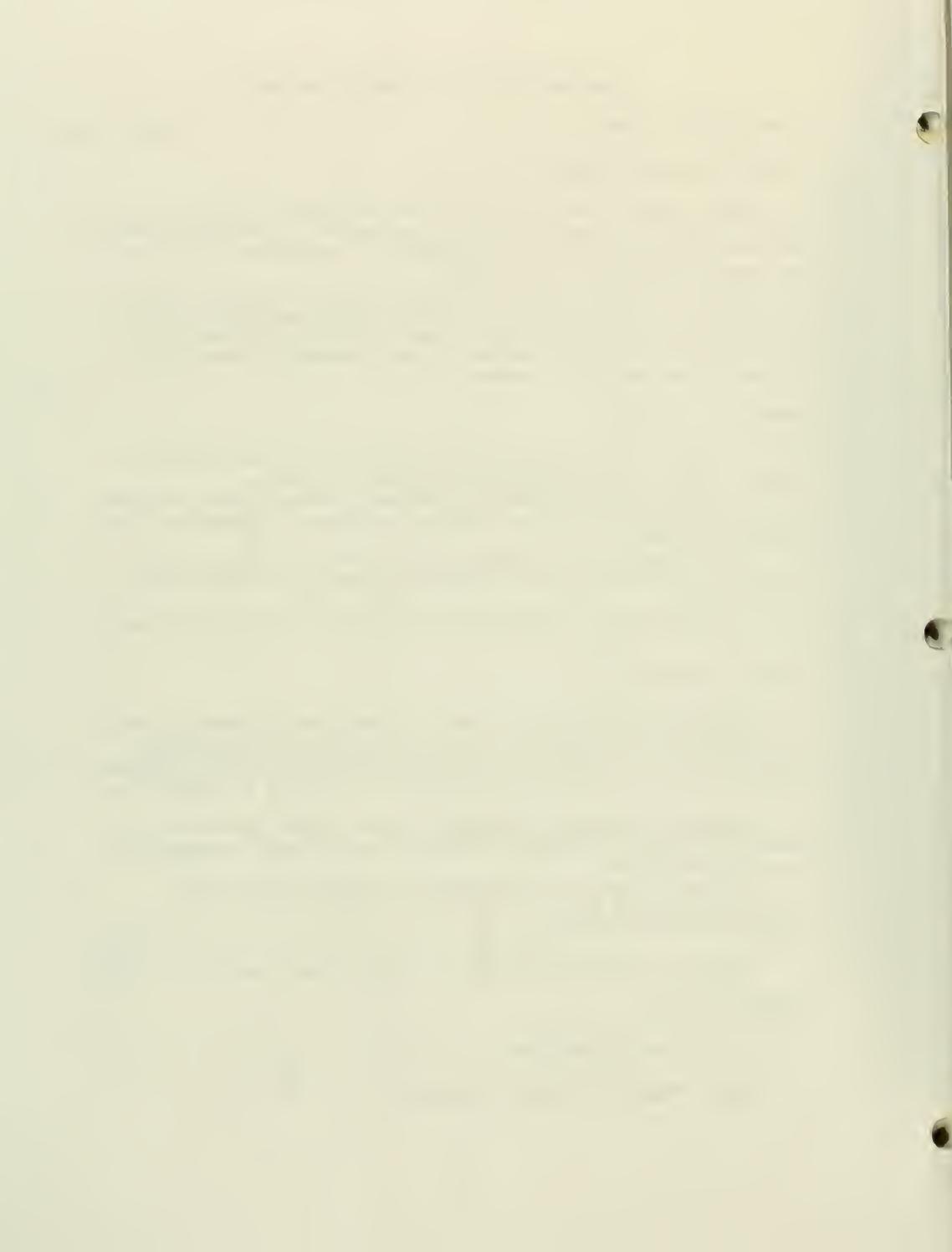
Requires skill in the use of carpentry hand tools and air operating excavation equipment.

License: Requires possession of a valid state chauffeur's license.

PROMOTIVE LINES:

To: Cribber Sub-Foreman

From: Original entrance examination



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: CRIBBER ASSISTANT SUPERVISOR

CODE: 7423

CHARACTERISTICS OF THE CLASS:

Under general supervisor, performs heavy manual and rough carpentry work in connection with the excavation, timbering and shoring of trenches necessary to the maintenance of underground sewers; exercises work direction over one or more assigned cribbers or laborers engaged in such activities; and performs related duties as required.

Nature of work requires; Considerable physical effort and some dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where moderately serious injuries may be encountered; regular exposure to very disagreeable working conditions in and around raw sewage.

EXAMPLES OF DUTIES:

1. Supervises and participates in the operation of air compressors, air hammers and other mechanical equipment in the excavating and backfilling of trenches.
2. Cuts, fits and installs planks and timbers to shore up holes or deep trenches; removes such planks and timbers on completion of sewer repair work.
3. Assists in the installation of new sewer lines; assures that all barricades, flags and lights are properly installed around excavations.
4. Assures that all open excavations are properly covered when work is not in progress.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by at least two years of experience in rough carpentry work involving the timbering and shoring of tunnels, shafts or similar excavations; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: The practices, methods, materials and tools used in rough carpentry and heavy timbering work.

Requires ability to follow oral and written instructions.

Requires skill in the use of carpentry hand tools and air operated excavation equipment.

PROMOTIVE LINES:

To : 7246 Sewer Repair Supervisor II

From. 7422 Cribber

Retitled: 7/1/77



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: DRYER-MIXER OPERATOR

CODE: 7424

CHARACTERISTICS OF THE CLASS:

Under supervision, operates and maintains asphalt plant equipment in connection with the production of asphalt mixtures; and performs related duties as required.

Nature of work requires: considerable physical effort and some dexterity in the use of fingers, limbs and body; continuous exposure to physical and working conditions where moderately serious injuries may be encountered.

EXAMPLES OF DUTIES:

1. Unloads asphalt and aggregate cars and transfers materials to storage tanks.
2. Operates mixer dryer, materials conveyors and elevators in mixing materials according to standard specifications.
3. Maintains and lubricates asphalt plant machinery and equipment; makes minor repairs to plant machinery as required.
4. Steams asphalt pipe lines in mixing operations.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by two years of general mechanical maintenance experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires some knowledge of mechanical machinery and equipment and the lubrication and maintenance requirements of mechanical equipment.

Requires ability to carry out oral and written instructions.

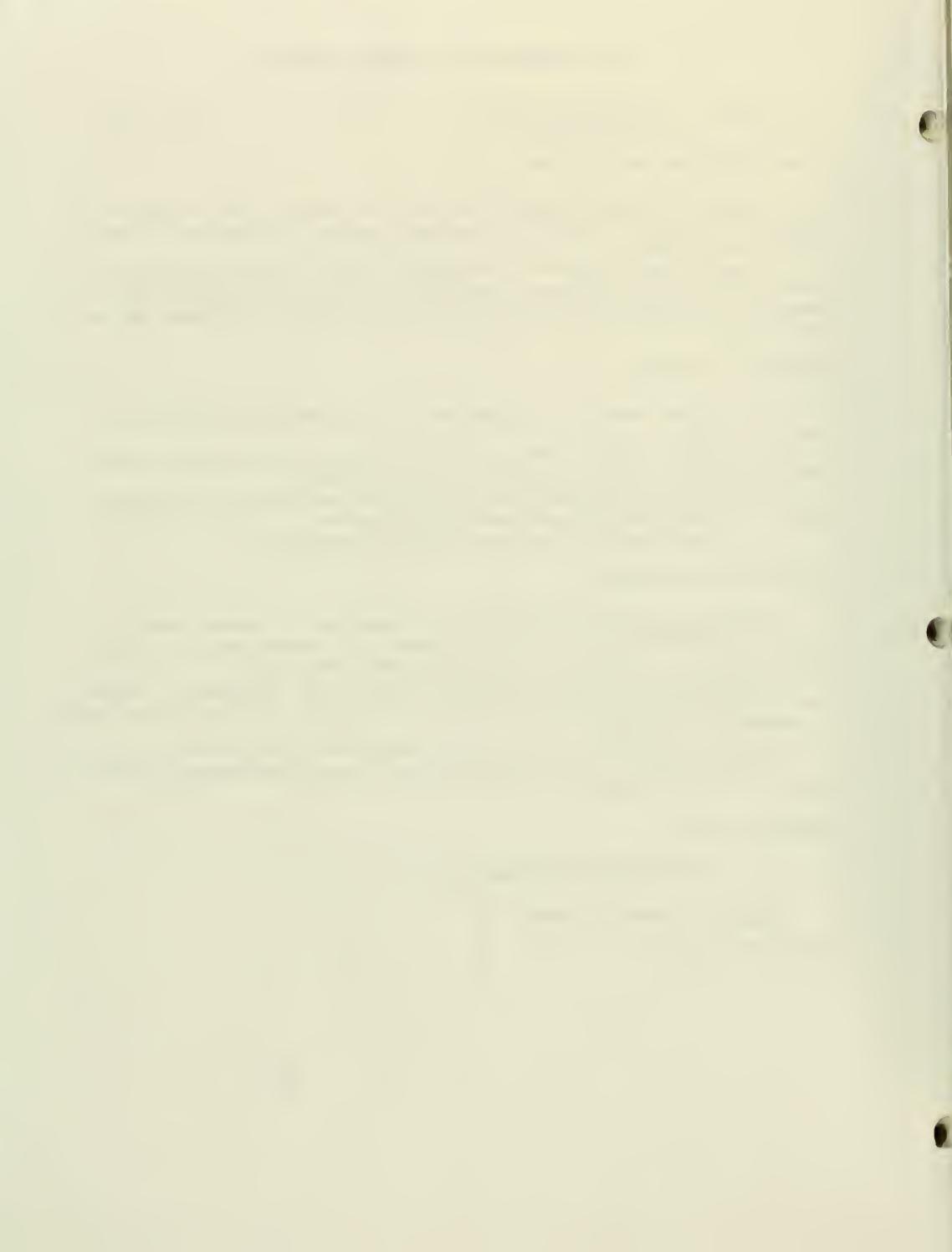
Requires skill in the use of hand tools used in mechanical maintenance and servicing work.

PROMOTIVE LINES:

To: 7221 Asphalt Plant Supervisor I

From: 7404 Asphalt Finisher

Retitled: 7/1/77



CLASS TITLE: ELEVATOR OPERATOR

CODE: 7426

CHARACTERISTICS OF THE CLASS:

Under general supervision, operates an electric elevator providing passenger service in a public building; may occasionally haul freight on elevator; and performs related duties as required.

Requires responsibility for making routine contact with the public and employees in providing information as to location of offices and departments and other general information.

EXAMPLES OF DUTIES:

1. Serves as an elevator operator on an assigned schedule transporting passengers from floor to floor; may haul freight on passenger elevator.
2. Exercises caution by observing all safety rules in connection with the operation of an elevator, such as preventing over-crowding or overloading and safeguarding passengers as they enter, ride or depart.
3. Furnishes information and assistance to the public regarding the location of county offices; calls floors and directs passengers to the various departments.
4. Checks elevator equipment and reports defects.
5. May instruct passengers in the proper use of escalators; checks proper functioning of escalator.

MINIMUM QUALIFICATIONS:

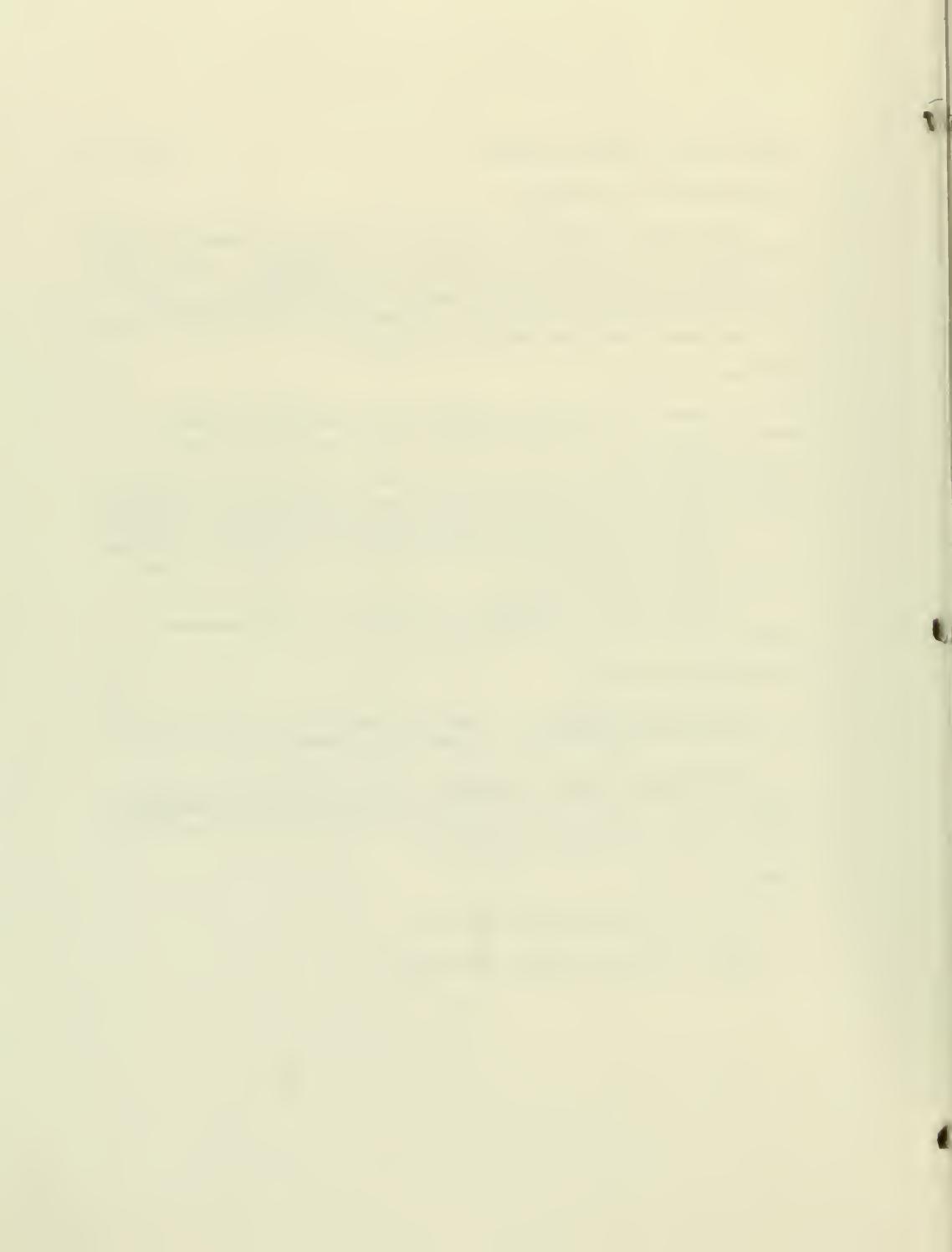
Training and Experience: Requires completion of grammar school; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires ability to: learn rapidly the operation of an elevator and related safety precautions; read and write, follow oral and written instructions; deal tactfully with the general public and employees.

PROMOTIVE LINES:

To: No normal lines of promotion

From: Original entrance examination



CLASS TITLE: HOD CARRIER

CODE: 7428

CHARACTERISTICS OF THE CLASS:

Under supervision, assists bricklayers in the maintenance and repair of brick sewers and related facilities; and performs related duties as required.

Nature of work requires: considerable physical effort in lifting and carrying heavy supplies and materials; intermittent exposure to extremely disagreeable working conditions involving working in and around raw sewage.

EXAMPLES OF DUTIES:

1. Mixes mortar and carries mortar and brick to bricklayer.
2. Lowers main sewer pipe in trenches and removes old pipe.
3. Builds sack dams in main sewers.
4. Builds scaffolding, templates and sluice boxes for bricklayers.
5. Opens and closes manholes and catch basins.
6. Keeps materials orderly and safe.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by three years of hod carrying experience; or an equivalent combination of training and experience.

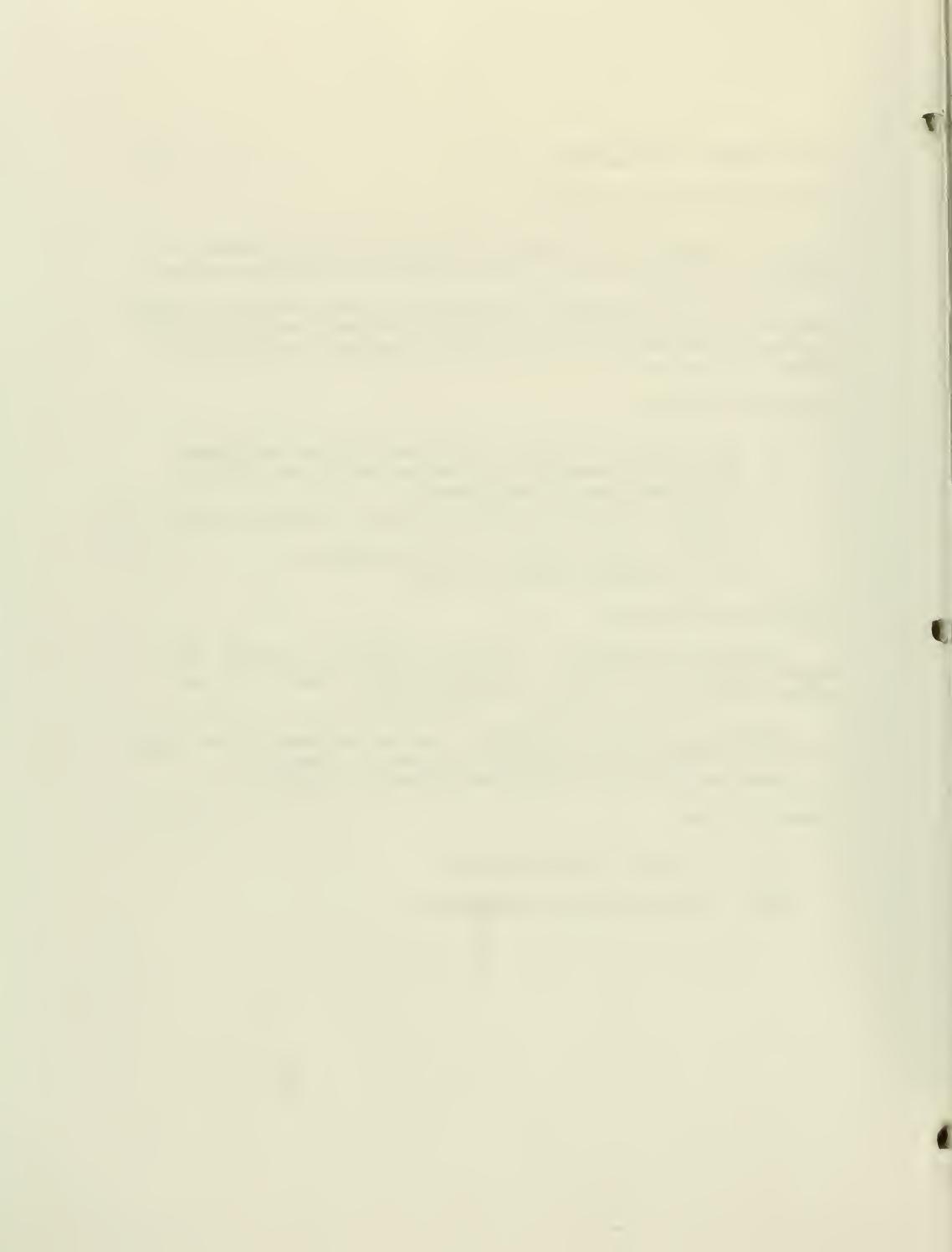
Knowledge, Abilities and Skills: Requires knowledge of the common practices, methods, tools and materials used in bricklaying.

Requires ability to follow instructions.

PROMOTIVE LINES:

To: Sewer Repair General Foreman

From: Original entrance examination



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: ASSISTANT ELECTRONIC MAINTENANCE TECHNICIAN

CODE: 7430

CHARACTERISTICS OF THE CLASS:

Under supervision, assists in performing skilled technical work including, but not limited to, the installation, calibration, maintenance, testing, trouble-shooting, repair, and modification of electronic equipment, and related control system components; and performs related duties as required.

DISTINGUISHING FEATURES:

This class is the beginning level in the electronic maintenance technician series. Positions in this class assist higher level technicians in the maintenance of circuits, components and related equipment used in connection with the operation of electronically controlled light rail vehicles. Other assignments may include assisting in the maintenance of electronic communication systems, telemetering, and remote control equipment. Incumbents in this class generally start work in an apprentice or training capacity and then graduate to higher assignments requiring less supervision.

EXAMPLES OF DUTIES:

1. Assists higher level technicians in the inspection, trouble-shooting, maintenance, repair, calibration, fabrication, design modification, installation and removal of electronic systems and equipment; may assist in the maintenance of wayside control and signal systems.

2. Assists in testing and calibrating electronic equipment using established test procedures; assists in operating Diagnostic Test Equipment (DTE), function generators, oscilloscopes, transmission measuring test sets, meters and other devices required to maintain electronic systems and equipment; utilizes various schematics, blueprints, wire lists, equipment manuals and other resources.

3. Assists in the inspection and repair of newly installed equipment including circuits and systems to evaluate performance under operating conditions; may assist in the trouble-shooting and repair of P.C. boards and equipment to the component level.

4. Assists in the initiation and/or maintenance of records; documents the maintenance installation, removal and modification of electronic systems and equipment.

5. May operate and use special hand and power tools such as: soldering equipment, drill press, grinder, crimper, saws, wire-wrap tools, and other related equipment.

6. May assist engineers, contractors and others, on operating and maintenance problem involved in the use of complex electronic equipment.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least one (1) year of electronics training at a junior college or recognized vocational institution or its equivalent, which may include military electronics training school.

Requires one (1) year of industrial electronics work, including fabrication, installation, calibration, maintenance, trouble-shooting and repair of electronics systems and equipment; or an equivalent combination of training and experience.

CLASS TITLE: ASSISTANT ELECTRONIC MAINTENANCE TECHNICIAN

CODE: 7430

MINIMUM QUALIFICATIONS: (Cont.)

Knowledge, Abilities and Skills: Requires good knowledge of: integrated circuits, solid state physics, electronics and electrical principals and theory including solid state components as applied to control, function, and logic circuits; digital and analog circuits; capabilities, limitations, operation and functional use of complex electronics test equipment; relay logic and electronic power, data processing and communications equipment.

Requires ability to: evaluate electronic systems, circuits and components; troubleshoot electric communications, power, and signal equipment and related systems; use and handle sensitive electronics equipment; work from drawings and blueprints.

Requires skill in: following logical procedures with regard for consequences in problem solving; making circuit calculations, interpreting and utilizing schematics and technical publications; reading, writing and communicating verbally in the English language; the application of safety procedures in the use of high voltage equipment.

Nature of work involves some physical effort and dexterity in the use of fingers, limbs and body; exposure to some physical working conditions where minor injuries may occur.

Normal color vision and a high degree of mechanical dexterity is MANDATORY.

License: Must possess a valid California Motor Vehicle Operator's License, and a Federal Communications Commission Radio Telephone First or Second Class License for position openings involving radio equipment servicing.

PROMOTIVE LINES:

TO: Electronic Maintenance Technician

FROM: Entrance examination

ADOPTED: 9-6-78

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: ELECTRICAL LINE HELPER

CODE: 7432

CHARACTERISTICS OF THE CLASS:

Under supervision, performs semi-skilled lineman work in the maintenance, repair and installation of high voltage overhead and underground electrical transmission lines; and performs related duties as required.

Nature of work involves: some physical effort and dexterity in the use of fingers, limbs and body; continuous exposures to physical and working conditions where moderately serious injuries may be encountered.

EXAMPLES OF DUTIES:

1. Digs holes and trenches for setting poles and laying underground cables.
2. Cleans and generally cares for line maintenance hand tools and special hot tools.
3. Makes up and splices hand lines; supplies tools and materials to linemen as required.
4. Assists in assembling poles and cross arms; trims trees and removes other obstructions along overhead line right-of-way.
5. Prepares materials necessary to tower painting operations.
6. Drives line truck to work sites and assures that truck is supplied with all necessary tools and materials.
7. May assist electricians in remote areas.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of general mechanical and electrical maintenance experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires knowledge of: the care and use of hand tools; the fundamentals of high voltage transmission lines. Requires ability to understand oral and written instructions.

Requires skill in the use of hand tools and the care of splicing hand lines.

License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES:

To: 7338 Electrical Line Worker

From: Original entrance examination

Retitled: 7/1/77



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: MAINTENANCE MACHINIST HELPER

CODE: 7434

CHARACTERISTICS OF THE CLASS:

Under immediate supervision, performs semi-skilled work in connection with machine maintenance and repair of a wide variety of machines, equipment, metal castings and parts; and performs related duties as required.

Nature of work requires: some physical effort and dexterity in the use of fingers, limbs and body; exposure to physical and working conditions where minor injuries may be encountered.

EXAMPLES OF DUTIES:

1. Disassembles and cleans component parts of machinery and equipment for repair and machine work.
2. Files or grinds castings and similar metal objects and tools; assists in reassembling components of machinery after repairs are made.
3. May operate simple machine shop equipment.
4. Cleans and maintains shop area and machines in a neat and orderly condition.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of general mechanical experience; or an equivalent combination of training and experience.

Knowledge, Abilities, and Skills: Requires some knowledge of machine shop tools, equipment and machinery and mechanical equipment.

Requires ability to follow oral and written instructions.

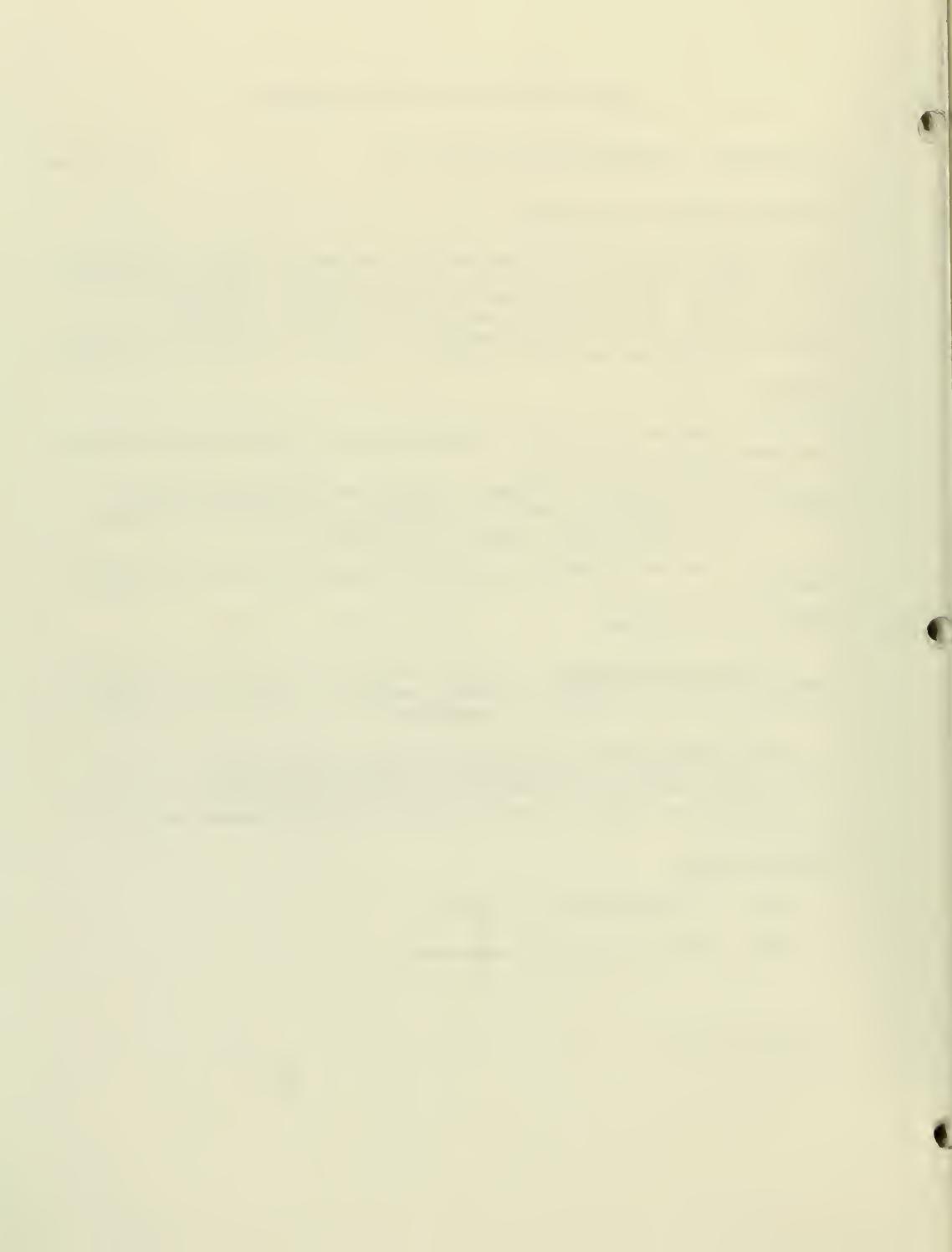
Requires some skill in the use of common hand and machine shop tools and equipment.

PROMOTIVE LINES:

To: No normal line of promotion.

From: Original entrance examination.

Revised: 10/5/61



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: EQUIPMENT TECHNICIAN

CODE: 7440

CHARACTERISTICS OF THE CLASS:

Under general supervision, installs, services, and repairs a variety of equipment appurtenant in school buildings; and performs related duties as required.

Requires responsibility for: carrying out routine instructions; maintaining simple records of time worked and materials used; some physical effort and dexterity in the use of fingers, limbs and body; occasional exposure to physical and working conditions where serious injuries may occur.

EXAMPLES OF DUTIES:

1. Erects metal scaffolding up to heights of 60 feet for purposes of building inspection, maintenance and repair activities, such as the overhauling of stage rigging and the relamping of gymnasiums, auditoriums and other inaccessible and hazardous locations, but excluding building trades work where craftsmen are employed.
2. Makes minor, unskilled repairs on metal lockers used in schools, which work is limited to the use of simple hand tools; services, repairs and replaces locks; changes combinations when necessary.
3. Installs, services and inspects all types of fire extinguishers and asbestos curtains; replaces fusible links on smoke doors in auditorium stages.
4. Replaces flag halyards by lowering flag poles and splicing new ropes; makes repairs to portable movie screens and roll-up maps; installs fixed movie screens, map rails and flag holders; maintains records of time worked and materials used during various assignments.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least four years of responsible experience in a wide variety of general maintenance and repair work; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires considerable knowledge of: mechanical maintenance and repair methods and procedures; the methods, tools and equipment used in general maintenance work.

Requires ability to: operate and utilize a variety of hand tools and equipment; follow written and oral instructions.

PROMOTIVE LINES:

To: 7245 School Equipment Warehouse Supervisor I

From: 2709 School Custodian

ADOPTED: 1/30/64

Retitled: 7/1/77



(AMENDED)

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: TOOL ROOM MECHANIC AND CUSTODIAN

CODE: 7441

CHARACTERISTICS OF THE CLASS:

Under general supervision, receives, issues and keeps records of tools, equipment and other materials used in the municipal transit system and in the vocational training programs of the San Francisco Community College District; performs related duties as required.

Requires responsibility for: Following established methods and procedures in the keeping, issuing, receiving and repairing of tools, equipment and other maintenance materials; preventing minor losses through the safeguarding of repair tools and equipment of relatively low value; keeping routine records of items received, issued and on hand. Nature of work requires some physical effort and dexterity in the use of fingers, limbs and body; intermittent exposure to working conditions where minor injuries may occur.

EXAMPLES OF DUTIES:

1. Receives and issues all tools, equipment, flags, bombs, lanterns and other materials used in excavation and track repair work by track maintenance crews.
2. Receives and issues tools and equipment used in vocational training programs conducted by the San Francisco Community College District.
3. Maintains and repairs pneumatic jackhammers and tie tampers, including all phases of disassembly, cleaning, checking with micrometer, ordering of new parts and reassembly.
4. Makes minor repairs to track maintenance tools and equipment, including electric and gas driven grinders; replaces handles on sledges, chisels, picks and shovels; sharpens drills, chisels, punches, cutters and picks; repairs air compressor hoses and electrical extension cords.
5. Repairs all issued automotive and aircraft shop tools, including mechanical and electrical equipment.
6. Performs safety checks on all issued and installed equipment.
7. Sorts returned tools and equipment for defective parts; orders replacement of supplies and stock items, as required.
8. May occasionally construct special tools, rigging equipment, air compressor hoses and electrical extension cords.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of eight years of elementary school, supplemented by at least one year of experience in general mechanical maintenance and repair work; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires working knowledge of various hand tools and equipment used in municipal transit repair operations; requires ability to repair and maintain various automotive and aircraft shop tools.

Requires ability to keep simple routine records; deal courteously, effectively and tactfully with fellow employees and students.

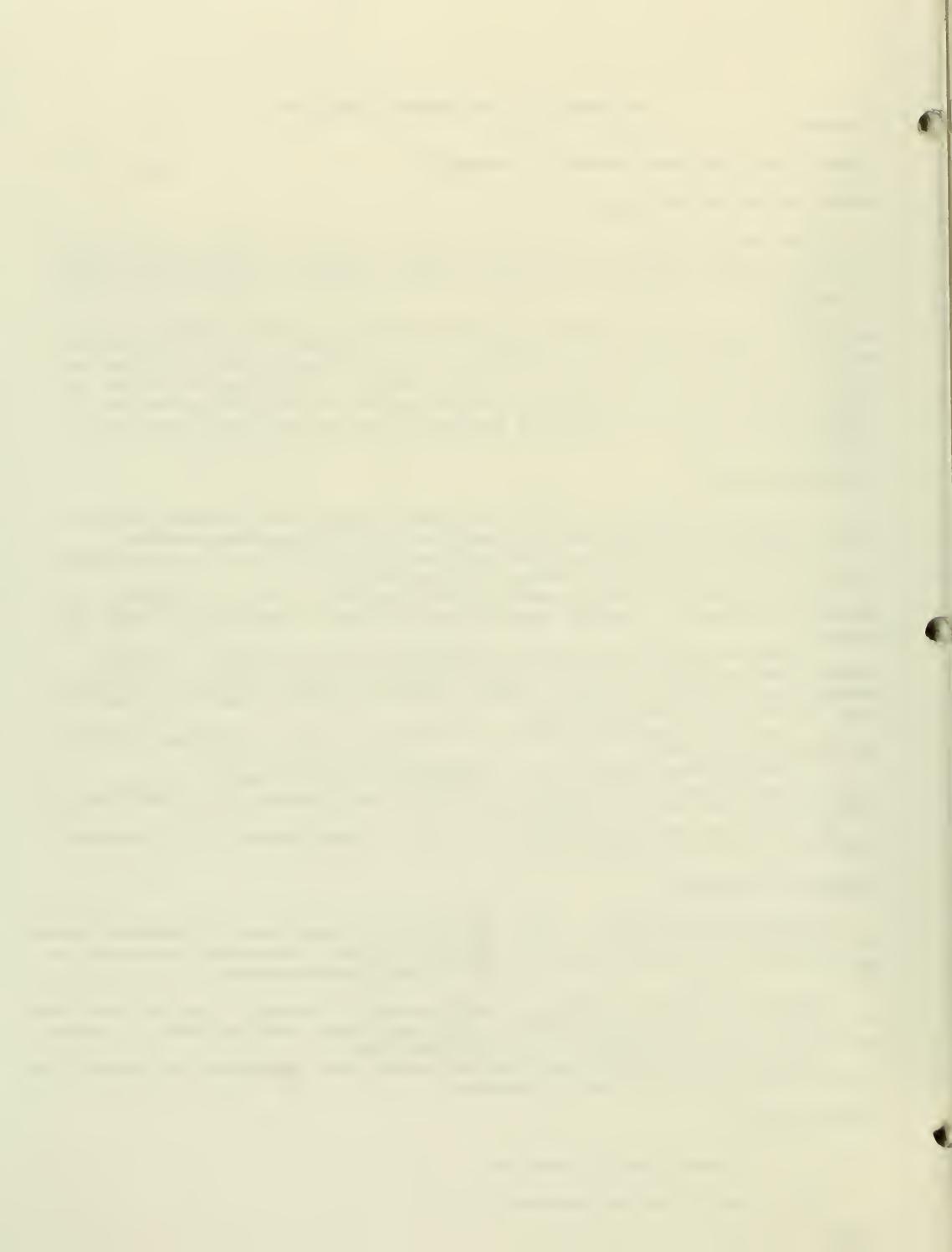
PROMOTIVE LINES:

To : No normal lines of promotion

From: Original entrance examination

ADOPTED: 12/28/67

AMENDED: 12/6/71



CLASS TITLE: WATER METER REPAIR HELPER

CODE: 7442

CHARACTERISTICS OF THE CLASS:

Under immediate supervision, performs simple, routine tasks in dismantling and preparing faulty water meters for processing in the meter repair shop; and performs related duties as required.

Requires responsibility for: following established methods and procedures in preparing faulty meters for shop processing; preparing simple tally counts of the number and type of meters handled. Nature of duties involves continuous physical effort, light work with occasional heavy work, manual effort and dexterity, with continuous exposure to minor accident hazards and disagreeable elements.

EXAMPLES OF DUTIES:

1. Dismantles used water meters; washes and cleans component parts; separates for attention of meter repairmen.
2. Assists in receiving and accounting for shipments of new meters; places prepared meters in stock.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires the ability to: perform simple repetitive manual tasks; make simple tallies and prepare related records; lift water meters; follow oral instructions accurately; get along well with others.

PROMOTIVE LINES:

To: Water Meter Repairman

From: Original entrance examination



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: PARKING METER REPAIRER

CODE: 7444

CHARACTERISTICS OF THE CLASS:

Under general supervision, performs skilled mechanical maintenance work in connection with field maintenance and repair of parking meters; patrols an assigned district and inspects parking meters for damage; and performs related duties as required.

Requires normal responsibility for: Following established methods and procedures relative to field repair of parking meters and installations; maintaining routine records of inspectional and repair work accomplished; making routine contacts with the general public and the Police Department. Nature of work involves sustained physical effort involving continuous field work, including manual effort and dexterity, with continuous exposure to minor accident hazards and some disagreeable elements.

DISTINGUISHING FEATURES:

The class of 7444 Parking Meter Repairman is assigned mechanical maintenance and repair work on parking meters in the field. Extensive and complex repairs and major overhaul of the meters are performed by class 7343 Maintenance Machinist in the shop using hand and power tools and requiring considerable knowledge of the principles, methods, materials, tools and equipment used in machine shop work. Work assigned class 7444 Parking Meter Repairman requires good knowledge in the use of hand tools and a working knowledge of operation, adjustment, maintenance and repair of parking meter mechanisms. Positions in this class are not assigned supervision over other employees.

EXAMPLES OF DUTIES:

1. Patrols and inspects parking meters in an assigned district and makes a variety of field repairs, including replacing glass, straightening poles, removing foreign objects from meters, replacing decals, and renumbering meters.
2. Installs and removes meters or replaces damaged parts, such as timers, coin doors, coin locks, coin boxes, hinges, meter heads and springs.
3. Adjusts springs, lock pins, coin doors and index rings.
4. Makes special inspections of meters alleged by persons receiving parking citations to have been inoperative.
5. Prepares routine reports of daily inspection and maintenance activities and vandalism and thefts.
6. Drives to meters in districts requiring use of tools and parts too cumbersome and heavy to carry.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by two years of experience in the routine maintenance and repair of mechanical mechanisms or equipment; or an equivalent combination of training and experience.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: PARKING METER REPAIRER

CODE 7444

MINIMUM QUALIFICATIONS: (Cont'd)

Knowledge, Abilities and Skills: Requires good knowledge of: General mechanical maintenance and repair methods and techniques and the use of related hand tools.

Requires ability to: Diagnose and correct mechanical defects; maintain routine records and prepare related reports.

Requires skill in the use of ordinary hand tools.

Licence: Requires possession of a valid State Motor Vehicle Operator's License.

PROMOTIVE LINES:

To: 7243 Parking Meter Repairer Supervisor I
From: Original entrance examination

Amended: 2/17/69; 8/11/69; 7/13/70

Retitled: 7/1/77

CLASS TITLE: SEWER CLEANER

CODE: 7448

CHARACTERISTICS OF THE CLASS:

Under general supervision, cleans sewers manually or by use of power equipment; flushes and inspects sewers; and performs related duties as required.

Nature of work requires: sustained physical effort involving considerable standing, bending, and working in close quarters; exposure to working conditions where moderately serious injuries may occur; continuous exposure to extremely disagreeable working conditions involving work with and in raw sewage.

EXAMPLES OF DUTIES:

1. Flushes, rods, and cleans main and side sewers using manual and power equipment.
2. Cleans channels and tanks in sewer treatment plants and pump stations.
3. Cleans manholes, catch basins, grates, sumps, and other miscellaneous sewer structures.
4. Loads dirt collected from sewer on trucks.
5. Locates breaks and inspects sewers.
6. Wets down trenches and builds dams.
7. Investigates complaints and makes routine reports.
8. Determines causes of cave-ins and makes dye tests.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by one year of general laboring experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires knowledge of the common practices and methods of sewer cleaning.

Requires ability to: use tools and equipment properly and observe safety methods; follow instructions.

PROMOTIVE LINES:

To: Sewer Serviceman

From: General Laborer
Cribber



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: SEWER SERVICE WORKER

CODE: 7449

CHARACTERISTICS OF THE CLASS:

Under general supervision, is responsible for the activities of a service crew engaged in the maintenance of the city sewer system; personally performs a variety of sewer cleaning and maintenance tasks; and performs related duties as required.

Requires responsibility for making regular contacts with the general public in connection with providing information of sewer maintenance activities and requirements. Nature of work requires: sustained physical effort involving considerable standing, bending, and working in close quarters; exposure to working conditions where moderately serious injuries may occur; continuous exposure to extremely disagreeable working conditions involving work with and in raw sewage.

EXAMPLES OF DUTIES:

1. Responds to service calls requesting maintenance on side and main sewers; locates breaks and makes repair; flushes and rods clogged sewers; dye tests sewers in locating trouble in the system.
2. Inspects large main sewers for necessary repairs; inspects for proper side sewer and catch basin connections; builds dams in sewer lines to divert flow during maintenance operations; examines and tests sewers to determine causes of street depressions.
3. Cleans grates and flushes sewage pumping station sumps.
4. Assures all street openings are properly barricaded and in safe condition.
5. Contacts occupants of property in connection with sewer maintenance work; prepares daily work and time reports.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of experience in the cleaning and maintenance of sewer systems; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: the sewer system and related maintenance requirements; the tools, materials and equipment necessary to maintenance activities.

Requires ability to: evaluate maintenance problems in the field and take appropriate corrective action; deal effectively and courteously with the general public.

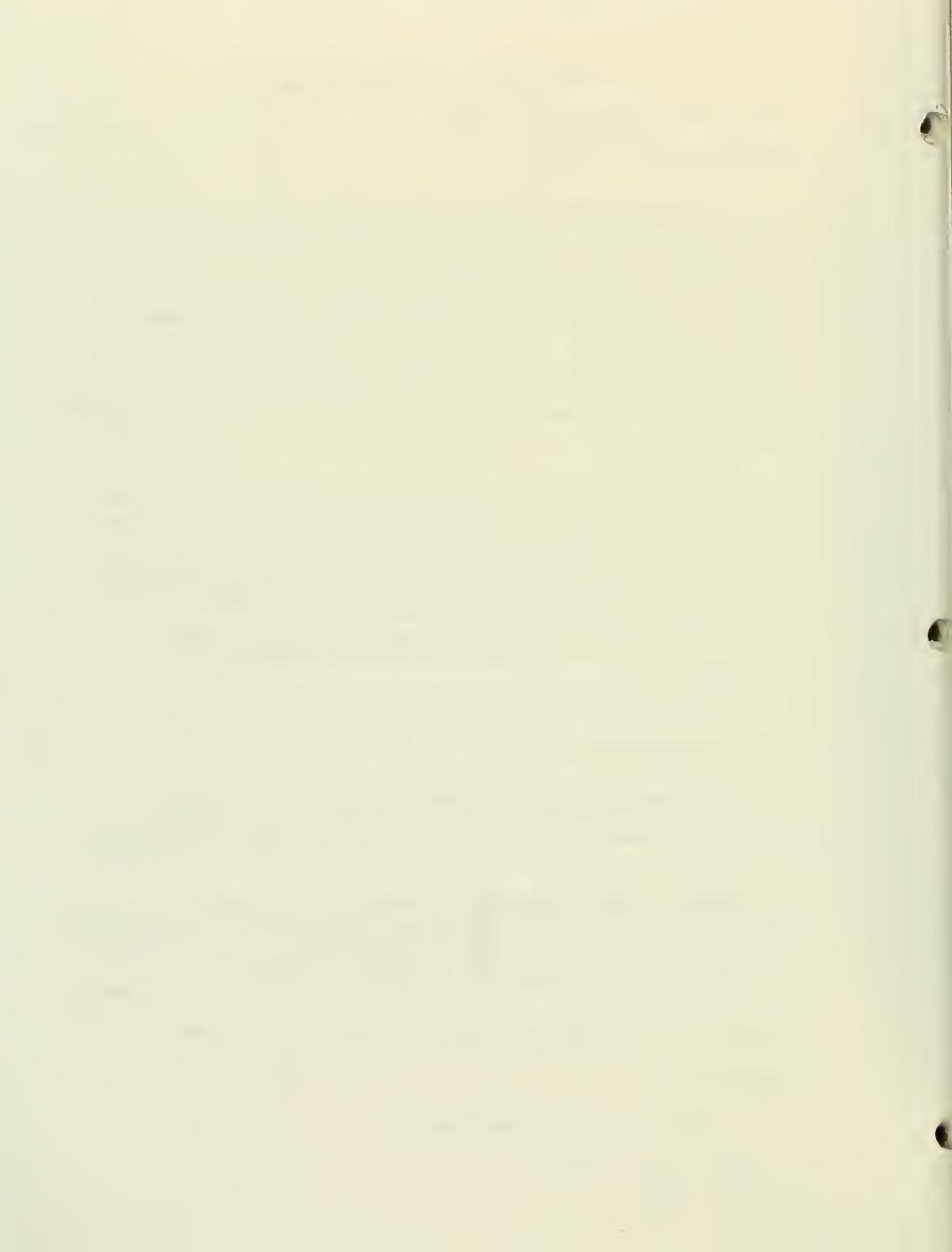
Requires skill in the use of tools, materials and equipment necessary to sewer maintenance work.

PROMOTIVE LINES:

To: 7246 Sewer Repair Supervisor II

From: 7448 Sewer Cleaner

Retitled: 7/1/77



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: SHADE AND DRAPERY WORKER

CODE: 7450

CHARACTERISTICS OF THE CLASS:

Under general supervision, manufactures window shades, drapes, stage curtains and venetian blinds to custom dimensions; removes and repairs as necessary; and performs related duties as required.

Requires normal responsibility for carrying out established methods and procedures in the manufacture and maintenance of window shades, drapes and related materials. Nature of work requires some physical effort in working from ladders or scaffolds; limited exposure to the dangers of cuts, bruises and falls.

EXAMPLES OF DUTIES:

1. Repairs and services window shades, drapes, stage curtains, movie screens and venetian blinds.
2. Measures, makes and installs new window shades, drapes, stage curtains, movie screens and visual aids.
3. Writes specifications for shades, stage drapes, window curtains and stage equipment.
4. Repairs, services and installs stage rigging.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by four years of experience in the maintenance, repair and manufacture of shades, blinds and draperies; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of the tools, equipment and procedures used in the design, manufacture, installation, maintenance, repair and modification of all types of shades, drapes, venetian blinds and similar equipment.

Requires ability to: fabricate, install and repair shades, drapes and movie screens; measure drapes and shades and write specifications; carry out oral and written instructions.

License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES:

To: No normal line of promotion

From: Original entrance examination
7452 Shade Worker

Retitled: 7/1/77



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: SENIOR SHADE AND DRAPERY WORKER

CODE: 7451

CHARACTERISTICS OF THE CLASS:

Under direction, supervises and participates in the manufacture of window shades, drapes, stage curtains and venetian blinds to custom dimensions; removes and repairs as necessary; and performs related duties as required.

Requires responsibility for: carrying out, interpreting and enforcing existing methods and procedures in the manufacture and maintenance of window shades, drapes and related materials. Nature of work involves: some physical effort in working from ladders or scaffolds; limited exposure to the dangers of cuts, bruises and falls.

EXAMPLES OF DUTIES:

1. Supervises and participates in the repair and service to window shades, drapes, stage curtains, movie screens and venetian blinds.
2. Measures, makes and installs new window shades, drapes, stage curtains, movie screens and visual aids.
3. Writes difficult specifications for shades, stage drapes, window curtains and stage equipment.
4. Repairs, services and installs stage rigging.
5. Inventories and requisitions equipment and material needed in construction and maintenance and repair of window shades, drapes and related material.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by four years of experience in the maintenance, repair and manufacture of shades, blinds and draperies; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires comprehensive knowledge of the tools, equipment and procedures used in the design, manufacture, installation, maintenance, repair and modification of all types of shades, drapes, venetian blinds and similar equipment.

Requires good ability to: fabricate, install and repair shades, drapes and movie screens; measure drapes and shades and write specifications; carry out oral and written instructions, instruct, supervise and inspect the work of others.

License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES:

To: No normal line of promotion

From: Original entrance examination
7452 Shade Worker
7450 Shade and Drapery Worker

Retitled: 7/1/77



SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: SHADE WORKER

CODE: 7452

CHARACTERISTICS OF THE CLASS:

Under general supervision, operates a shade shop in conjunction with the manufacture and repair of window shades and venetian blinds; and performs related duties as required.

Requires normal responsibility for: following established procedures and methods in the manufacture and repair of window shades and venetian blinds; preparing and maintaining ordinary operating records. Nature of work requires skill, adeptness and speed in the use of the hands.

EXAMPLES OF DUTIES:

1. Manufactures new window shades according to specifications; installs completed shades.
2. Removes, repairs and replaces worn or damaged shades and venetian blinds.
3. Maintains records of all window shade and venetian blind sizes.
4. Ascertains amount of material needed and requisitions necessary quantities; estimates and plans installation requirements.
5. Maintains records of all window shades and venetian blinds supplies as ordered, received, used, and on hand.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least three years of experience in the maintenance and repair of window shades and venetian blinds; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of the materials, supplies and tools used in shade and blind repair work.

Requires ability to: make simple computations; follow simple specifications.

PROMOTIVE LINES:

To: 7450 Shade and Draperty Worker

From: Original entrance examination

Retitled: 7/1/77



**CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES**

JOB CODE TITLE: TRAFFIC SIGNAL OPERATOR

JOB CODE: 7454
Business Unit: COMMN

DEFINITION:

Under general supervision, operates a signal system and flag to control the orderly movement of cable cars at intersections; observes traffic conditions for adherence to rules and regulations; occasionally assists pedestrians in crossing streets and provides information on how to get to sites around the City; and performs related duties as required.

DISTINGUISHING FEATURES:

7454 Traffic Signal Operator is an entry-level class.

SUPERVISION EXERCISED: None.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to 7454 Traffic Signal Operator and are not intended to be an inclusive list.

1. Operates signal system to control the flow of cable car traffic at intersections by applying repetitive manual pressure to signal buttons.
2. Controls movement of cable cars with a flag when signal malfunctions and/or when operator's view is obstructed by traffic.
3. Occasionally assists pedestrians in crossing streets safely.
4. Confirms traffic delays and accidents to Muni central control by telephone.
5. Provides information to the general public including tourists, on how to get to sites within the City.
6. Performs related duties as required.

JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: rules and regulations governing pedestrian, auto and cable car traffic; safety rules and regulations necessary to foresee and resolve potentially dangerous situations.

Ability to: operate a signal system; communicate clearly and effectively with departmental staff, the public and emergency services personnel; create and maintain harmonious working relationships with coworkers, other City employees and the public.

Skills to: repetitively operate the signal buttons.

EXPERIENCE AND TRAINING GUIDELINES:

1. Six months (1000hrs.) work experience directing traffic; **OR**
2. One year (2000hrs.) work experience that included driving a vehicle; **AND**
3. Ability to pass color discernment test

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JOB CODE TITLE: TRAFFIC SIGNAL OPERATOR

JOB CODE: 7454

Business Unit: COMMN

SPECIAL REQUIREMENTS:

Essential duties require: normal hearing, freedom from color and night blindness, dexterity of the fingers, alertness at all times while on the job, application of simple repetitive manual skill in the operation of a signal system; ability to sit and work alone in a small space; and working in inclement weather.

Effective date: July 1, 1977

Amended: May 5, 2000

Reason for amendment: to accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this Job Code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: STREET SIGNAL REPAIRER

CODE: 7456

CHARACTERISTICS OF THE CLASS:

Under general supervision, maintains, repairs and installs street signs throughout the city; operates sign repair shop; and performs related duties as required.

Requires responsibility for repairing and maintaining ordinary sign inventories and shop operating records. Nature of work requires some physical effort and dexterity in the use of fingers, limbs and body.

EXAMPLES OF DUTIES:

1. Picks up damaged street signs and returns them to shop for repair or replacement.
2. Straightens, repairs and cleans signs which are still serviceable.
3. Installs new street signs as required.
4. Maintains street sign stocks and requisitions new signs as necessary.
5. Maintains records of signs installed and inventory records related to sign shop operations.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of grammar school, supplemented by at least two years of general mechanical, maintenance and repair experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: the city street system; the materials and tools used in the erection, removal and rehabilitation of signs.

Requires ability to: follow oral and written instructions; prepare simple reports.

Requires skill in the use of the tools and materials used in the erection and removal of signs.

License: Requires possession of a valid state chauffeur's license.

PROMOTIVE LINES:

To: No normal line of promotion

From: Original entrance examination

Retitled: 7/1/77



**CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES**

JOB CODE TITLE: SIGN WORKER

JOB CODE: 7457
Business Unit: COMMN

DEFINITION:

Under supervision, fabricates, installs, repairs, inspects and maintains a variety of signs and performs other duties as required.

DISTINGUISHING FEATURES:

The 7457 Sign Worker is an entry-level class. The class is distinguished from 5303 Supervisor, Traffic and Street Signs in that the former fabricates, installs, inspects, repairs and maintains signs where as the latter supervises subordinate personnel engaged in the fabrication, installation, inspection, repair and maintenance of signs.

SUPERVISION EXERCISED:

None.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to 7457 Sign Worker and are not intended to be an inclusive list.

1. Operates vehicle to transport equipment and materials such as poles, ladder, tools and safety equipment and signs.
2. Reads and interprets written and technical instructions to comprehend work assignments.
3. Fabricates, cuts and drills lettering symbols and signs; lays out and prepares signs for installations in and on buildings, viaducts and parking garages using computer and plotter.
4. Breaks cement; digs holes using power tools which include portable generators, cement breaker, power drills, core drill, electric band saws, drill presses, vacuum applicator and hand tools which include saws, wrenches, hammers, screwdrivers, sledge-hammers, levels, rivet-guns, ladders, shovels, post-hole diggers, trowels, and cement mason tools.
5. Installs into ground and repairs poles or posts using gas run cement breaker or sledge-hammer, post-hole digger, tamping-bar, chipping bar, cement, cement mason tools, level, tape measure, pipe wrench, pole-straightener, band-saw, ratchet and sockets, center punch, and power drill to ensure that all installations meet safety codes and will not result in legal liabilities to the City.
6. Attaches signs to poles, posts or other structures using banding tool, band-it, brackets, ladders, bucket truck, wrenches and sockets, and hammer buckles to ensure that all installations meet safety codes and will not become legal liabilities to the City.
7. Removes graffiti and posted materials from signs using chemical solutions.
8. Maintains records of signs installed and inventory of signs and equipment in stock; fills out forms detailing work order and emergency assignments and incident and/or accident reports.
9. Prepares reports of work accomplished.
10. Performs related duties as required.

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JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: procedures to ensure the safety of workers and the public during installation, placement, repair and maintenance of signs; concrete; painting; and State and local laws governing the proper placement of signs.

Ability to: read and interpret engineering maps and/or drawings, work orders and comprehend technical instructions; drive a motor vehicle to transport materials and equipment; communicate effectively with supervisors, engineers, the general public; promote and maintain cooperative and harmonious working relationships; write clear and concise reports of emergencies, incidents and/or accident, work completed, inventory of signs and equipment; lift and carry heavy objects; learn and use applicable computer applications

Skill in: the safe use of a variety of hand and power tools and vehicles; computer utilization for related software applications.

EXPERIENCE AND TRAINING GUIDELINES:

1. One year of verifiable experience performing manual laborer duties from written instructions or blueprints. Such experience must have specifically included the use and operation of pneumatic and power tools including pavement breaker, power drill, core drill, electrical saw and drill press.
2. Ability to lift and carry heavy objects weighing up to 100 lbs.

LICENSE/CERTIFICATE: Possession of a valid driver license.

SPECIAL REQUIREMENTS:

Nature of work involves physical effort and manual dexterity in the use of the fingers, limbs and body. Safety rules and regulations are a primary consideration in the nature of the work that is performed within this job code. Duties may require working at heights and in inclement weather.

Effective Date: July 1, 1977

Amended and Retitled: May 5, 2000

Reason for amendment: to retitle and accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this Job Code.

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

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7458 SWITCH REPAIRER

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Definition: Under general supervision, maintains, cleans, oils, and adjusts a variety of types of switches, safety latches, turntables, diamonds, connecting rods and floating heel blocks; replaces switch points, connecting rods, mechanisms, springs, nuts and bolts for surface, subway, and Cable Car; cleaning and lubricating all moving parts of track and switches; adjusting, repairing and replacing defective parts of switches; inspecting electrical and manual track switches; maintaining a safe work environment; maintaining inventory of supplies; updating a maintenance log; lifting and carrying heavy equipment (such as beams and switches weighing up to 200 pounds) with assistance, and sacks of sand weighing a minimum of 90 pounds; and performing related duties as required.

Distinguishing Features: The 7458 Switch Repairer is distinguished from the 7251 Track Maintenance Worker Supervisor I in that the latter performs more complex and difficult duties and supervises a group of track maintenance workers and switch repairers.

Supervision Exercised: None.

Examples of Important and Essential Duties: According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this job code (class) and are not intended to be an inclusive list.

1. Cleans and lubricates all moving parts of track switches and cleans out drains in switch boxes.
2. Adjusts, repairs and/or replaces defective or worn out parts of switches to assure their proper working order.
3. Inspects electrical and manual track switches throughout the railway system including surface, subway and cable car on a daily basis to ensure switches are operating correctly.
4. Drives a truck to and from switch locations throughout the City in order to inspect and repair switches.
5. Maintains a safe work environment at the location of the switch repair work by placing warning cones for traffic and parking truck in proper place as well as wearing safety jackets, shoes, etc.
6. Maintains inventory of supplies for repair and/or replacement of switches and notifies appropriate person when supplies are low.
7. Keeps a maintenance log of all sites inspected and all parts used in order to have an accurate record of all maintenance and preventive maintenance work on switches.

Job Related and Essential Qualifications:

Knowledge of: basic electricity; basic hand tools; and safety procedures.

Ability to: lift 90 pound sacks of sand and other heavy equipment; and communicate orally and in writing.

Skill to: maintain, service and repair mechanical equipment; and drive a truck from shop to locations throughout the City.

Experience and Training Guidelines:

1. Two years of verifiable experience in the maintenance and repair of either cable car tracks, electrical railway tracks or of railroad tracks.

License/Certificate: Possession of valid Class C driver's license.

Special Requirements:

Essential duties require the following physical skills and work environment: frequent exposure to adverse conditions, such as rain, cold, dirt and dust. The incumbent must drive a vehicle to location of breakdowns or accidents; may also be required to test-drive vehicles.

Retitled and Amended: 5/7/73

Amended: October 29, 1999

Reason for Amendment: To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this class.

CLASS TITLE: UTILITY PLUMBER HELPER

CODE: 7462

CHARACTERISTICS OF THE CLASS:

Under supervision, performs semi-skilled plumbing work by assisting a utility plumber in the installation, care and maintenance of water mains, pipes, meters, fire hydrants, gates and valves; and performs related duties as required.

Requires normal responsibility for carrying out duties according to instructions. Nature of work involves considerable dexterity in the use of fingers, hands, limbs and body, with exposure to physical and working conditions where moderately serious injuries may occur.

EXAMPLES OF DUTIES:

1. Makes street and sidewalk excavations for the installation, removal, repair or alteration of water mains, meters, service pipes, fire hydrants, hydrant leads, gates, valves and other appurtenances; back-fills ditches or other excavations; assists in the laying of various types of water mains, pipes and the installation of meters or fire hydrants.

2. Assists in the drilling and tapping of water mains; operates various hand or power tools or equipment, such as mounted or portable air compressors, pumps, light plants, pneumatic drills, pavement breakers, clay diggers and caulking tools; chips and cleans pipe and fittings and coats pipe with preservative; loads and unloads pipes, dirt, broken pavement and other heavy materials; drives truck to and from job sites.

3. Assists in the cleaning and repair of sewers, the maintenance and testing of water meters and check valves; assists in the cleaning and flushing of valves, vaults and underground cisterns; assists in the cutting and threading of pipe with hand dies or threading machine; assists in the caulking of joints, sleeves and connections, and in the location and repair of leaks.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of eight years of elementary school, supplemented by at least two years of general mechanical and plumbing maintenance experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires a good knowledge of: the methods, tools and equipment used in the repair, maintenance and installation of water mains, pipes and meters.

Requires ability: in the use of pertinent tools and equipment; to drive a truck; to carry out instructions and cooperate with others in the performance of duties; to perform heavy physical work.

License: Requires possession of a valid state motor vehicle operator's license.

CLASS TITLE: UTILITY PLUMBER HELPER (Continued)

CODE: 7462

PROMOTIVE LINES:

To: Utility Plumber

From: Original entrance examination

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

JOB CODE TITLE: UTILITY PLUMBER APPRENTICE

JOB CODE: 7463
Business Unit: COMMN

DEFINITION:

Under immediate supervision of a qualified journey-level Utility Plumber Apprentice performs apprentice work by assisting in the installation, care and maintenance of water mains, pipes, meters, fire hydrants, gates and valves. Work is performed as part of a recognized program of the United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada and is subject to the local coordinating committee of the Joint Apprenticeship Committees of the Plumbing and Pipefitting Industry; all work that may be performed is specified in the Points of Jurisdictions of the existing collective bargaining agreement.

Requires progressive responsibility for carrying out duties according to instructions. Nature of work involves considerable dexterity in the use of fingers, hands, limbs and body with exposure to physical and working conditions where moderately serious injuries may occur.

DISTINGUISHING FEATURES:

The Utility Plumber Apprentice works under direct supervision of a qualified journey level Utility Plumber during the apprenticeship required by the trade, learning the operation, repair and maintenance of water mains, pipes, meters, fire hydrants, gates and valves. Class 7463 Utility Plumber Apprentice is distinguished from the next higher class 7388 Utility Plumber in that the incumbents in the latter class perform full journey level duties under general supervision.

SUPERVISION EXERCISED:

None.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to 7463 Utility Plumber Apprentice and are not intended to be an inclusive list.

1. In the apprentice capacity, assists in the installation of new water services and mains or replaces or relocates services with copper, cast iron, wrought iron, plastic, or steel pipe, and bronze, copper or galvanized fittings; drills and taps water mains.
2. Assists in locating and repairing underground and surface leaks on service pipes and water mains; makes repairs under water pressure, using various methods; installs, changes, removes, and makes field repairs to water meters; sets meters and meter boxes in conformity with established sidewalk grades; installs, relocates or changes temporary water mains and makes necessary alterations to water services and meters; removes meters and conducts flow and pressure tests.
3. Assists in cleaning and maintaining traps; repairs gate valves, changes broken or worn spindles; repacks glands; assists in the operation of gate valves; checks air valves when filling mains; repairs leaks in cast iron mains using leak clamp for minor breaks, or in the case of large breaks, cuts out and removes broken meters or registers on water mains and meters; recaulks joints on new and old mains; lays out and installs new mains and pertinent fittings.
4. In connection with duties of an apprentice, may assist in the laying of various types of fire devices, services, parts and equipment, including high and low pressure fire hydrants.

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JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: the methods, tools and equipment used in the repair, maintenance, and installation of water mains, pipes and meters.

Ability to: lift objects weighing up to 75 pounds; operate a 90 pound thrust jack hammer; climb ladders and work in deep trenches; learn the use of pertinent tools and equipment; drive a truck; carry out instructions and cooperate with others in the performance of duties; perform heavy physical work.

EXPERIENCE AND TRAINING GUIDELINES:

1. Applicant must be a current indentured Utility Plumber Apprentice working for the City and County of San Francisco.
2. Possession of a valid Driver's License.

Effective Date: November 24, 1969

Amended Date: March 6, 2000

Reason for Amendment: To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this job code.

SAN FRANCISCO CIVIL SERVICE COMMISSION

CLASS TITLE: VOTING MACHINE REPAIRER

CODE: 7464

CHARACTERISTICS OF THE CLASS:

Under supervision, services, repairs and distributes voting machines for elections; returns and stores machines after elections; and performs related duties as required.

Requires responsibility for: carrying out and explaining existing methods and procedures relating to the servicing and repair of voting machines; making occasional contacts with the general public in instructing on the operation of voting machines. Nature of work requires frequent physical effort involving heavy lifting.

EXAMPLES OF DUTIES:

1. Inspects, repairs, replaces or adjusts voting machines; removes and replaces parts as necessary; services voting machine lighting equipment.
2. Inspects and resets candidate counters; removes and replaces defective and broken booster wheels, corner braces, leg braces, machine services and stops, and broken door hardware.
3. Paints voting machine cases and related equipment using brush and spray gun.
4. Supervises temporary personnel in the preparation of voting machines during election time; takes crews to schools and sets up, tests and adjusts voting machines; lifts voting machines on and off drayage trucks.
5. Assists in supervising the canvassing of votes cast on all voting machines.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of general mechanical maintenance experience; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires knowledge of general mechanical maintenance and repair work and the uses of related tools, materials and equipment.

Requires ability to: analyze and make necessary repairs to mechanical equipment; deal tactfully with the general public.

Requires skill in the use of hand and shop tools.

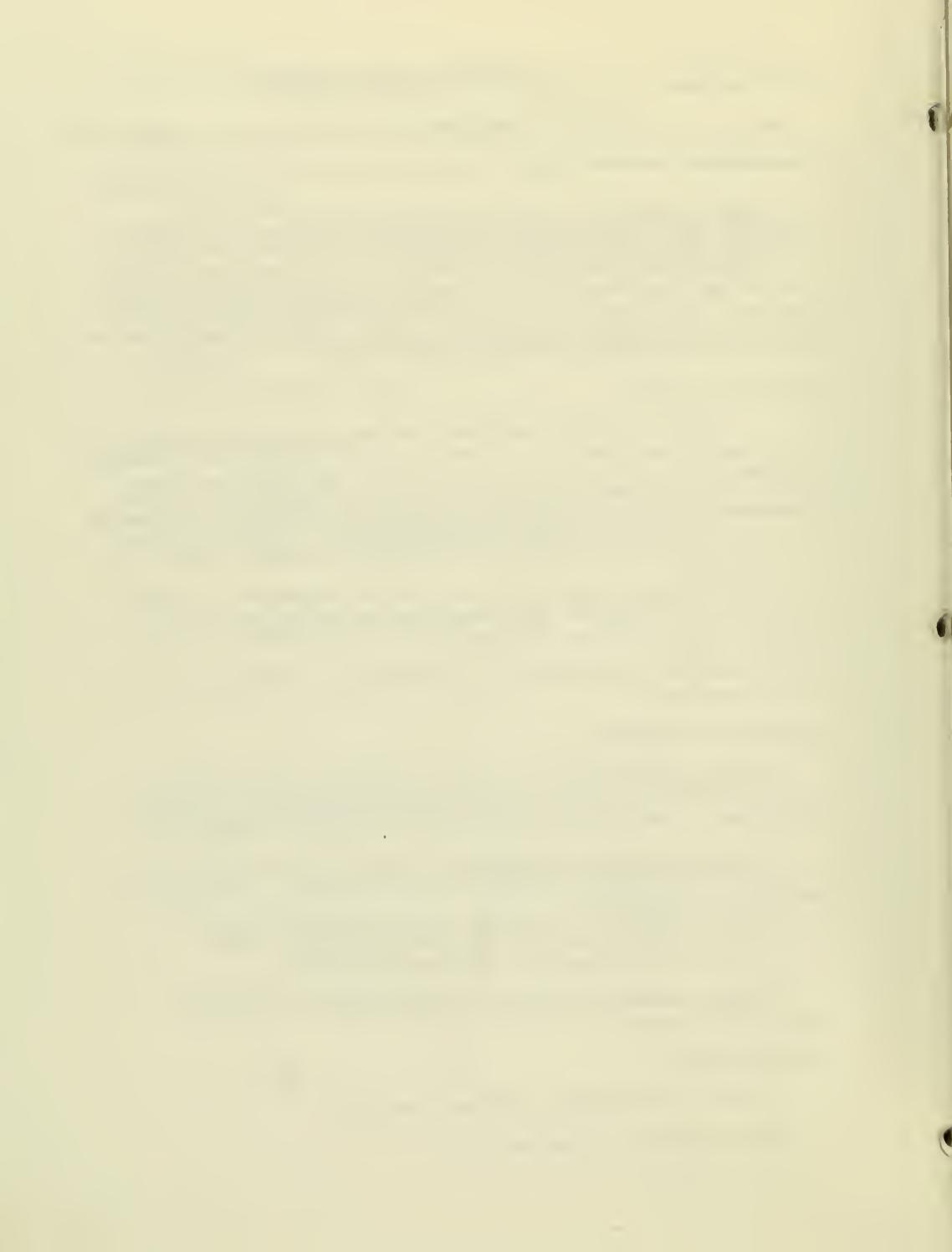
License: Requires possession of a valid state motor vehicle operator's license.

PROMOTIVE LINES:

To: 7201 Voting Machine Assistant Supervisor

From: Original entrance examination

Retitled: 7/1/77



CLASS TITLE: VOTING MACHINE ASSISTANT CUSTODIAN

CODE: 7466

CHARACTERISTICS OF THE CLASS:

Under general supervision, assists in supervising the distribution, servicing and repair of voting machines for elections and the return and storing of machines after elections; assists in supervising the recanvassing of votes cast; assumes duties of custodian, voting machines, in his absence; and performs related duties as required.

Requires responsibility for: carrying out and explaining existing methods and procedures relating to the servicing and repair of voting machines; making occasional contacts with the general public in instructing on the operation of voting machines. Nature of work requires frequent physical effort involving heavy lifting.

EXAMPLES OF DUTIES:

1. Assists in supervising the inspection and repair of voting machines; makes difficult and complex adjustments.
2. Supervises the stripping and labeling of voting machines; inspects and re-sets candidate counters; removes and replaces broken parts.
3. Supervises painting of voting machine cases and related equipment.
4. Supervises temporary personnel in the preparation of voting machines during election time; takes crews to schools and sets up, tests and adjusts voting machines and makes repairs when necessary; lifts voting machines on and off drayage trucks.
5. Assists in supervising the recanvassing of votes cast on all voting machines.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by at least two years of experience in the maintenance, repair and adjustment of voting machines; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires good knowledge of: mechanical operations and materials used in the servicing of voting machines.

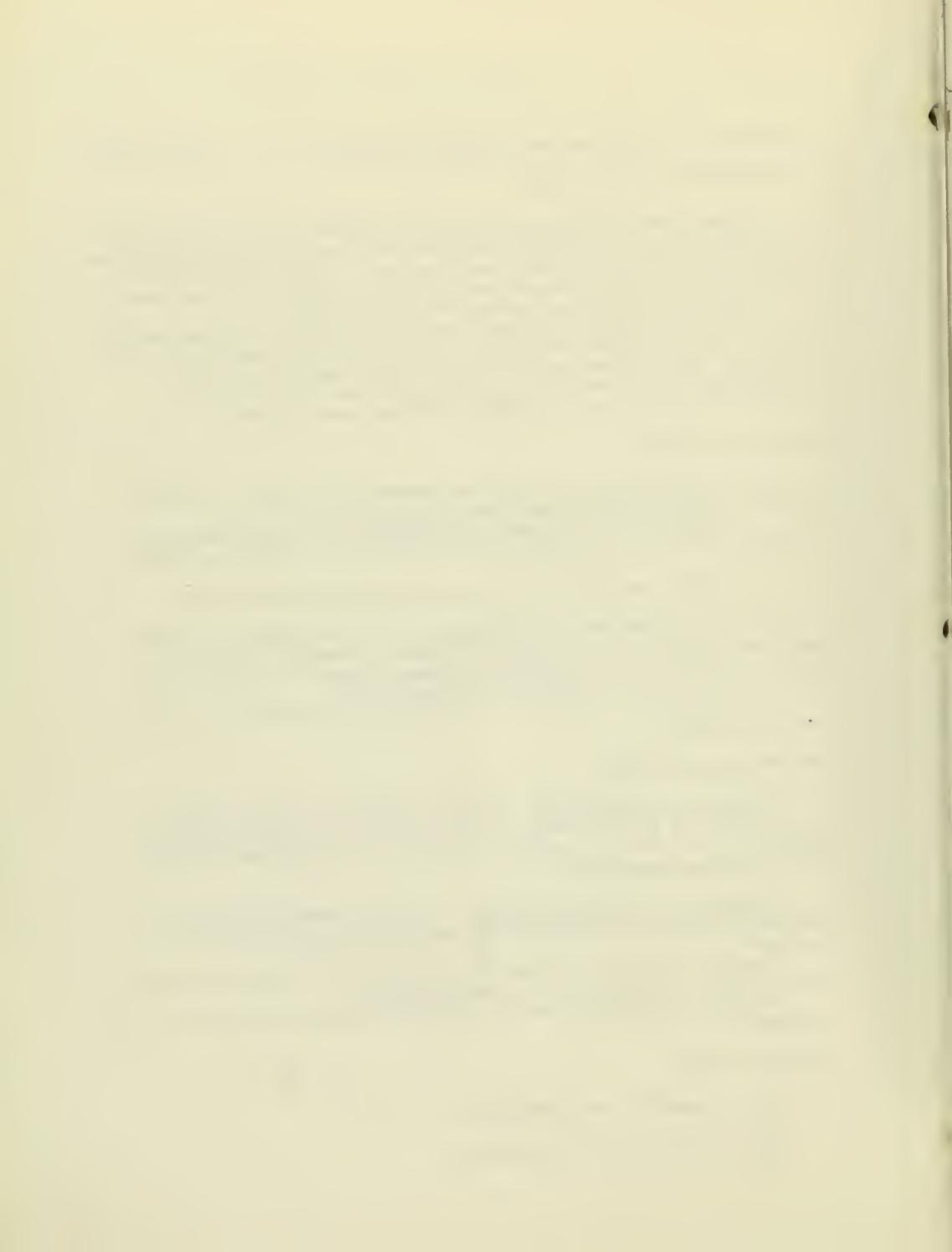
Requires ability to: supervise, inspect and review the work of others; deal tactfully with the general public.

Requires considerable skill in the use of hand and shop tools and equipment.

PROMOTIVE LINES:

To: Custodian, Voting Machines

From: Voting Machine Serviceman



CLASS TITLE: WATERSHED KEEPER

CODE: 7470

CHARACTERISTICS OF THE CLASS:

Under general supervision, patrols and polices watershed properties and facilities in preventing trespassing and pollution of watersheds; fights forest fires; and performs related duties as required.

Requires normal responsibility for: following established methods and procedures in patrolling and caring for watershed areas; keeping routine records and reports. Nature of work requires: considerable physical effort in patrolling the watershed area; continuing exposure to the elements and to working conditions where minor injuries may occur.

EXAMPLES OF DUTIES:

1. Patrols and polices watershed and reservoir areas; removes all debris and dead animals; arrests swimmers, hunters, fishermen, garbage dumpers and other trespassers; maintains landscaped areas.
2. Reads indicating meters and recording instruments and charts to determine water levels, water flow and temperature; keeps records of unusual conditions and work performed.
3. Patrols lakes and reservoirs by launch to inspect water conditions and takes samples; locates, reports and fights forest fires.
4. Operates various pipe lines, flumes, stream flow, spillways and sluice gates to regulate the flow of water from the reservoirs; measures and dumps fluoride into hoppers to keep continual flow into the pipe lines; inspects, adjusts and operates chlorine station equipment.
5. May take weather station readings, search for lost hikers, perform maintenance work and escort visitors.

MINIMUM QUALIFICATIONS:

Training and Experience: Requires completion of high school, supplemented by one year of experience in general laboring and caretaking work, or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Requires knowledge of: methods and practices employed in the operation of gates, valves, screen systems, water measuring devices and other equipment related to reservoir operations; life saving and fire fighting equipment and artificial respiration.

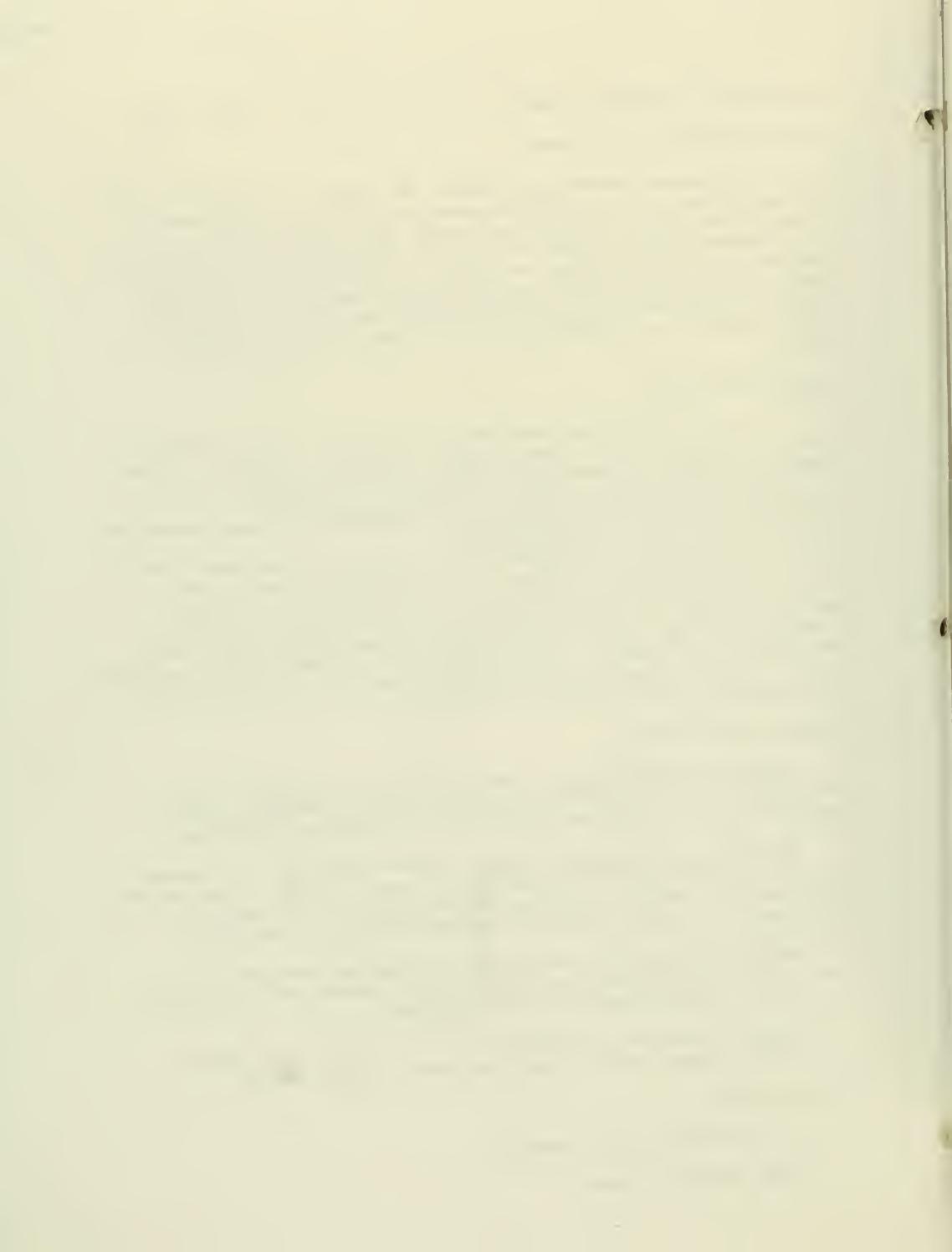
Requires ability to: read gauges and measuring devices; use simple hand tools; fight fires; perform rescue operations; make simple arithmetical computations; write simple reports.

License: Requires: possession of a valid state motor vehicle operator's license; bond and deputization as a deputy sheriff.

PROMOTIVE LINES:

To: No Normal Line of Promotion

From: Reservoir Keeper



**CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES**

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**JOB CODE TITLE: WIRE ROPE CABLE MAINTENANCE MECHANIC JOB CODE: 7472
Business Unit: MTA**

DEFINITION:

The Wire Rope Cable Maintenance Mechanic is a journey-level position in the Cable Car Division of the Municipal Railway.

DISTINGUISHING FEATURES:

Wire Rope Cable Maintenance Mechanic works under general supervision as the fully trained journey-level mechanic in this series. Job Code 7472 Wire Rope Cable Maintenance Mechanic is distinguished from lower Job Code 7473 Wire Rope Cable Maintenance Mechanic Trainee in that the latter is the trainee position.

SUPERVISION EXERCISED: None

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

According to Civil Service Commission Rule 409 (CSC-MTA Rule), the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.

1. Inspects cables for defects.
2. Repairs, splices and lubricates traction cables.
3. Splices fiber and wire rope slings and rigging; rigs for and installs new cables; adjusts and maintains cable tension carriages in proper alignment.
4. Inspects, repairs and installs sheaves, lagging and component parts.
5. Oversees the activities of crews assigned to cable repair.
6. Operates overhead crane and machinery and motor vehicles.
7. Completes daily reports and other related documentation.
8. Manufactures wire components for cable car braking systems.
9. Performs related duties and responsibilities as assigned.

JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: Wire rope cable splicing methods and techniques refers to an

understanding of splicing fiber and wire rope slings and rigging, including eye-splicing; long splicing and knot tying; tools, materials and equipment used in wire rope cable maintenance; methods and procedures including all applicable OSHA regulations in connection with cable splicing and repair activities.

Skill to: Promote and maintain effective personal relations and communications; maintain a professional demeanor; produce results based on project time-frames; deal effectively under pressure; listen with understanding and comprehension; write and speak clearly and effectively; appropriately document and maintain records.

EXPERIENCE AND TRAINING GUIDELINES:

Two years of verifiable wire rope cable splicing experience which must include eye-splicing, long splicing; knot tying in fiber; and rigging. (One of the two years must be at the journey-level); OR

Two years experience in Class 7473 Wire Rope Cable Maintenance Mechanic Trainee.

OTHER REQUIREMENTS:

License:

Possession of a valid Class C driver license.

Special requirements:

The nature of work involves considerable physical effort to perform mechanical tasks; incumbents may be required to work in adverse weather or work conditions such as rain, cold, dirt and dust, in narrow and confined spaces an/or in very noisy surroundings. May also be required to work various shifts, weekends and holidays.

Amended Date: 12/15/00

Reason for Amendment: To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis for his job code.

JAN - 9 2001

**CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES**SAN FRANCISCO
PUBLIC LIBRARY**JOB CODE TITLE: WIRE ROPE CABLE MAINTENANCE
MECHANIC TRAINEE****JOB CODE: 7473
BUSINESS UNIT: MTA****DEFINITION:**

The Wire Rope Cable Maintenance Mechanic Trainee is an entry (sub-journey) level position in the Cable Car Division of the Municipal Railway.

DISTINGUISHING FEATURES:

Wire Rope Cable Maintenance Mechanic Trainee works under the supervision of the Wire Rope Cable Maintenance Mechanic. The 7473 Wire Rope Cable Maintenance Mechanic Trainee is distinguished from higher Job Code 7472 Wire Rope Cable Maintenance Mechanic in that the latter is the fully trained journey-level position.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

According to Civil Service Commission Rule 409 (CSC-MTA Rule), the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.

1. Assists in the inspection of cables for defects.
2. Assists in the repairing, splicing and lubricating of traction cables.
3. Assists in the splicing of fiber and wire rope slings and rigging.
4. Assists in the installation of new cables, adjusting and maintaining cable tension carriages in proper alignment.
5. Assists in the inspection, repair and installation of sheaves, lagging and component parts.
6. Assists in the operation of the overhead crane and machinery.
7. Operates motor vehicles.
8. Assists in the manufacturing of wire components for cable car braking systems.
9. Performs related duties and responsibilities as assigned.

**JOB CODE TITLE: WIRE ROPE CABLE MAINTENANCE
MECHANIC TRAINEE**

**JOB CODE: 7473
Business Unit: MTA**

JOB RELATED AND ESSENTIAL QUALIFICATIONS:

Knowledge of: Tools, materials and equipment used in wire rope maintenance work; refers to possession of some knowledge of tools and equipment used to splice, repair and replace wire rope cables; splicing fiber and wire rope slings and rigging, including eye splicing, long splicing, and knot tying; safety methods and procedures, including all applicable OSHA regulations in connection with cable splicing and repair activities.

Ability to: Communicate by conversing clearly and effectively with co-workers and others; understand and follow instruction; work cooperatively with co-workers at all levels; operate motor vehicles.

EXPERIENCE AND TRAINING GUIDELINES:

One year of rope or wire splicing experience and/or mechanical experience working with cable machinery.

OTHER REQUIREMENTS:

License:

Possession of a valid Class C driver license.

Special requirements:

The nature of work involves considerable physical effort to perform mechanical tasks; incumbents may be required to work in adverse weather or work conditions such as rain, cold, dirt and dust, in narrow and confined spaces an/or in very noisy surroundings.

Amended Date: 12/15/00

Reason for Amendment: To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis for his job code.



